

FIG. 1

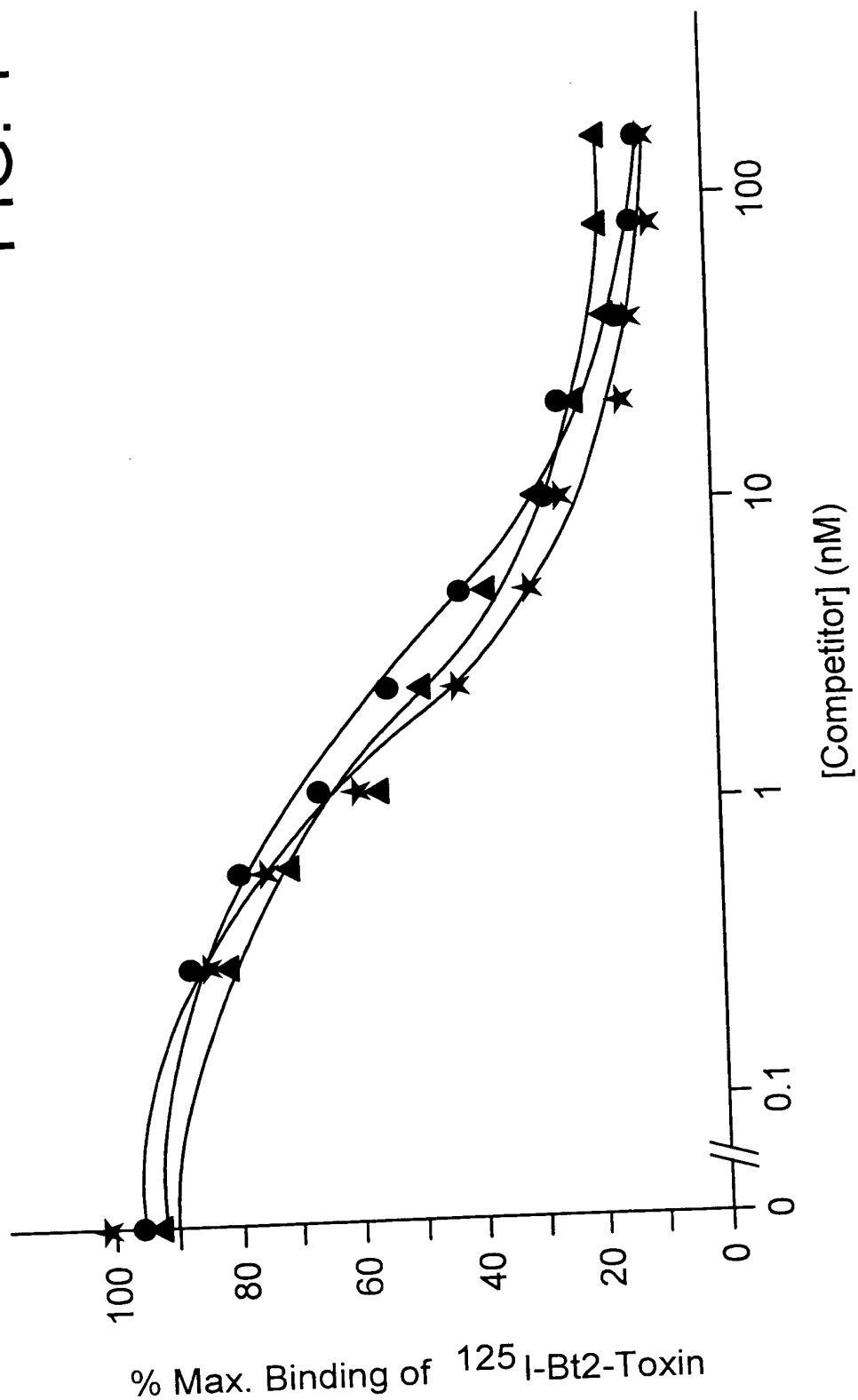


FIG. 2

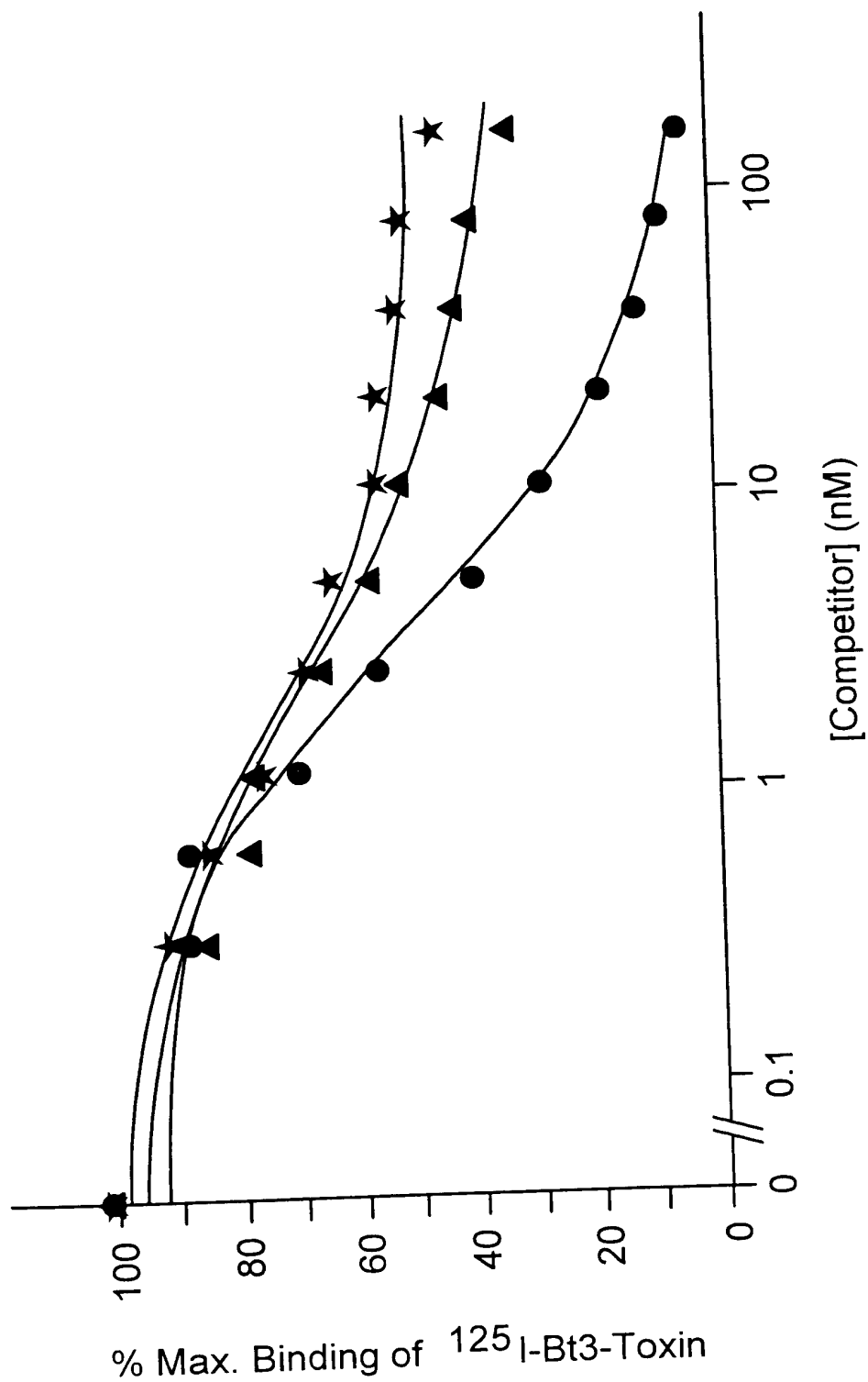


FIG. 3

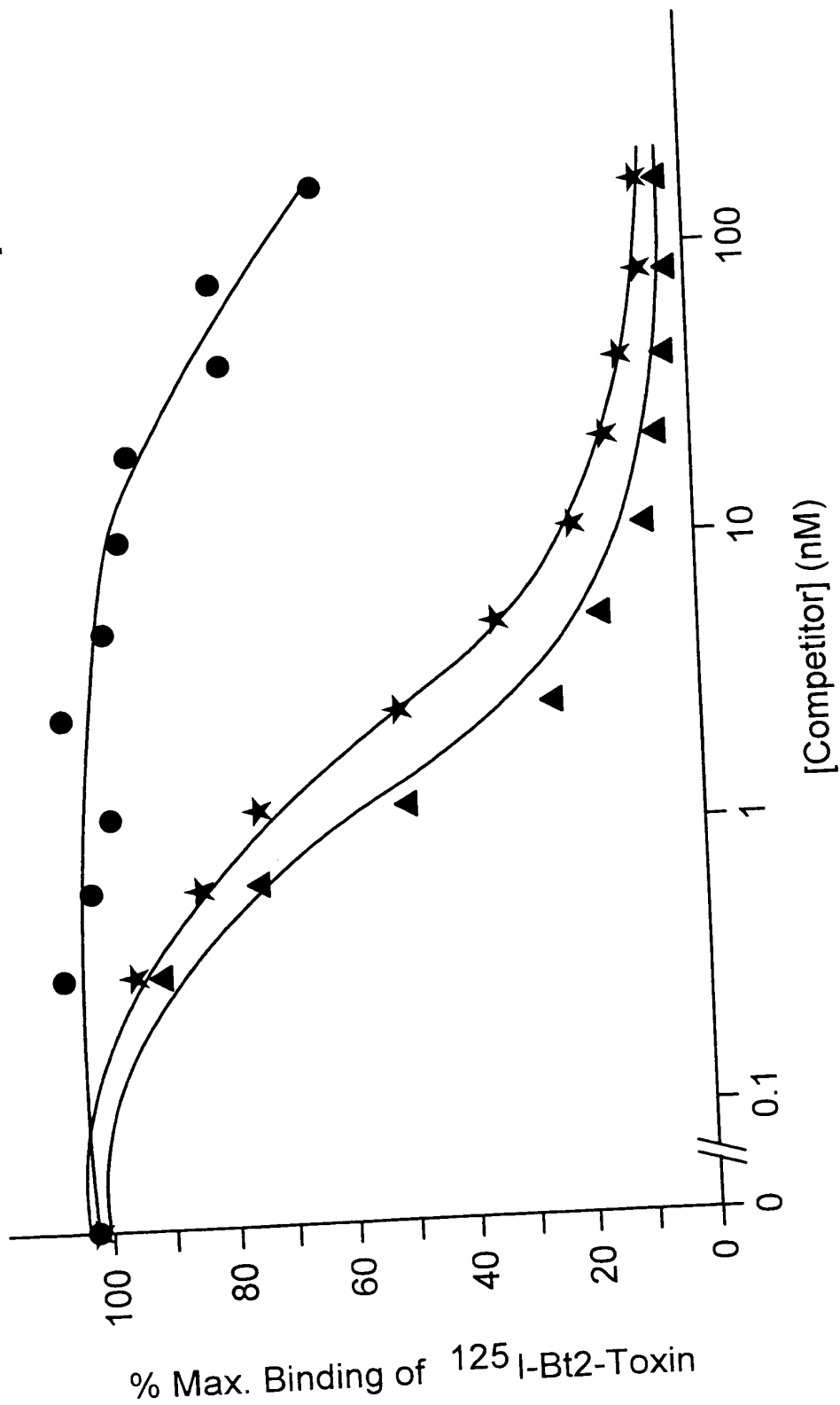


FIG. 4

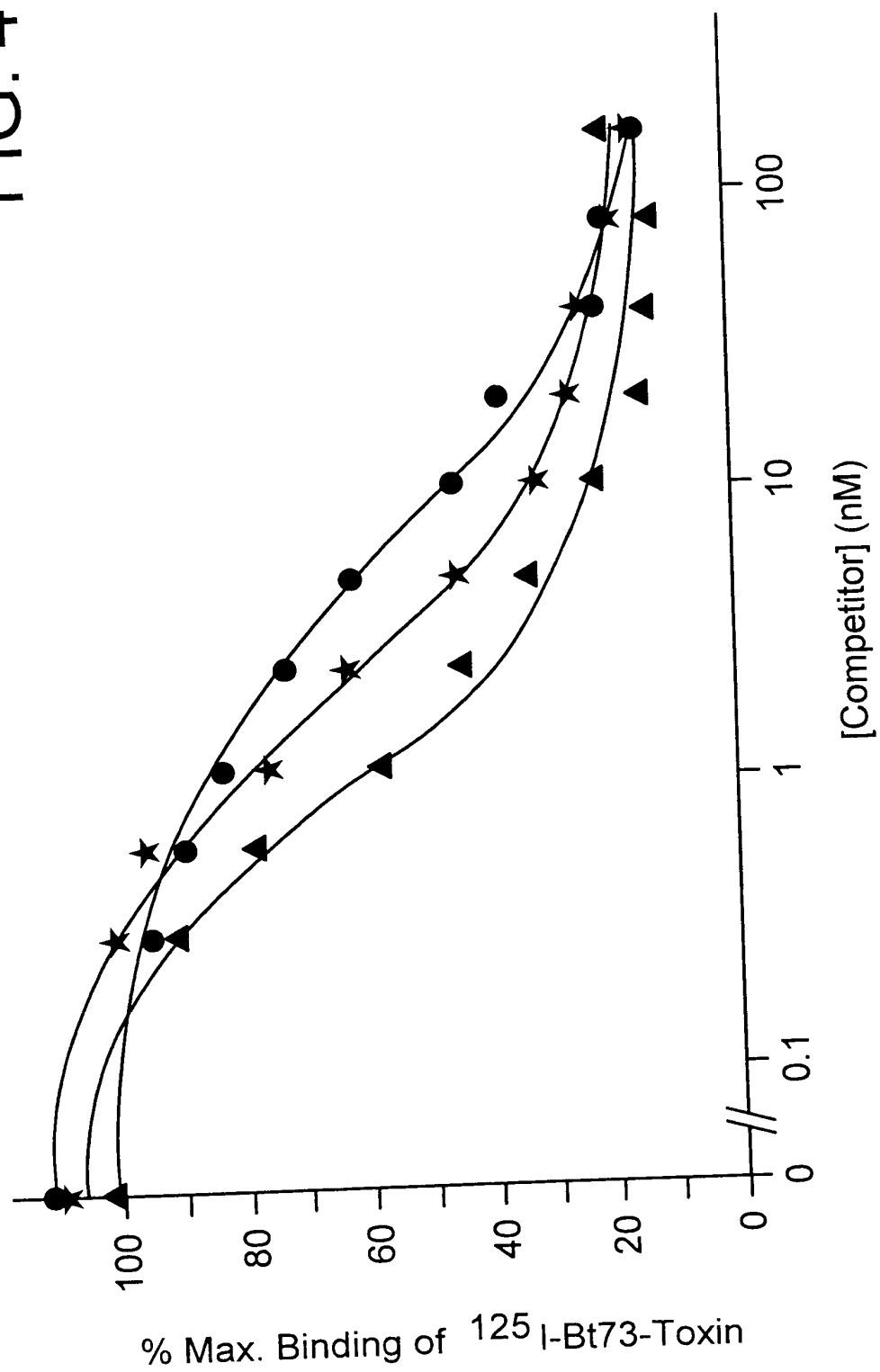


FIG. 5

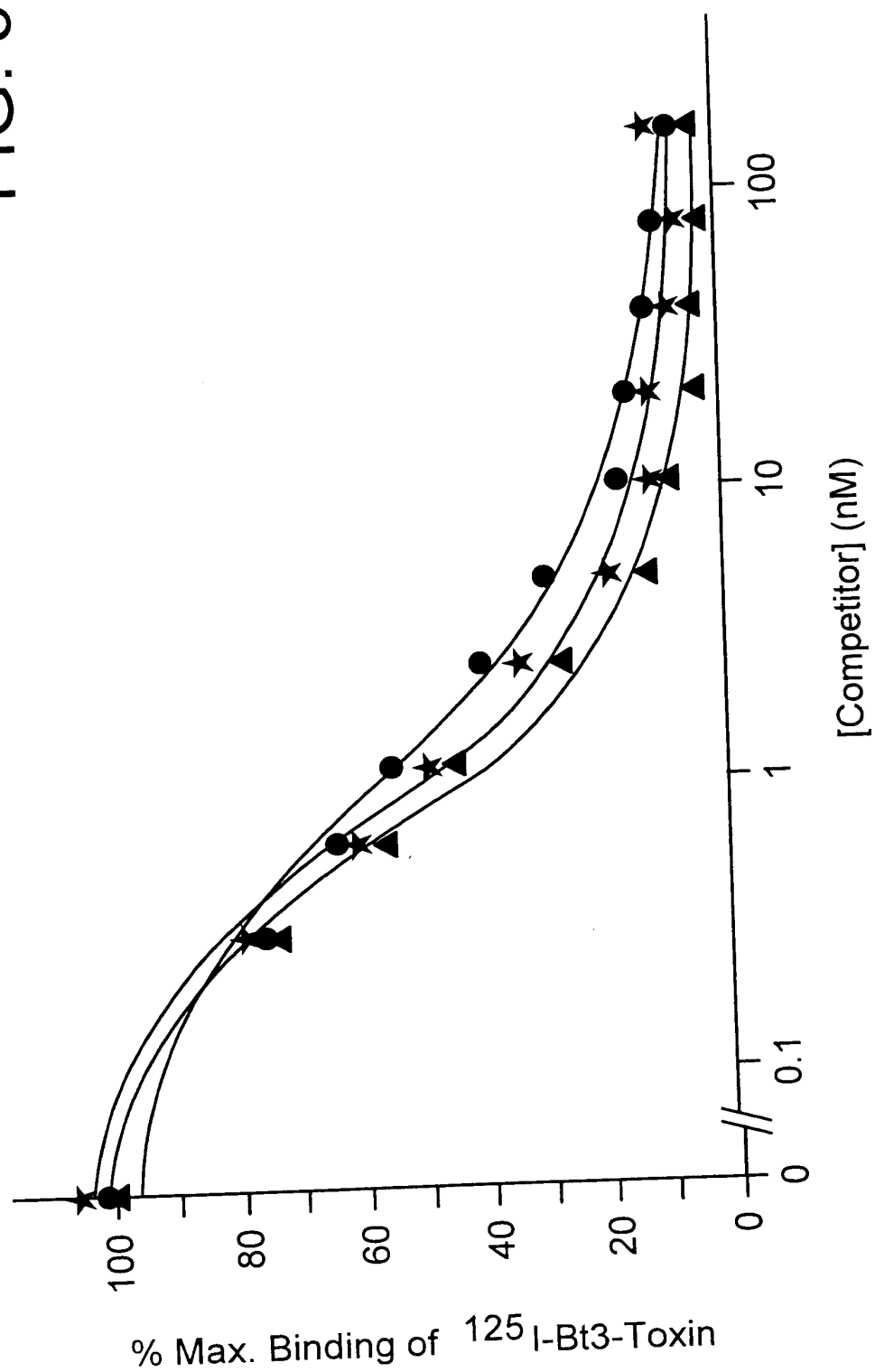


FIG. 6

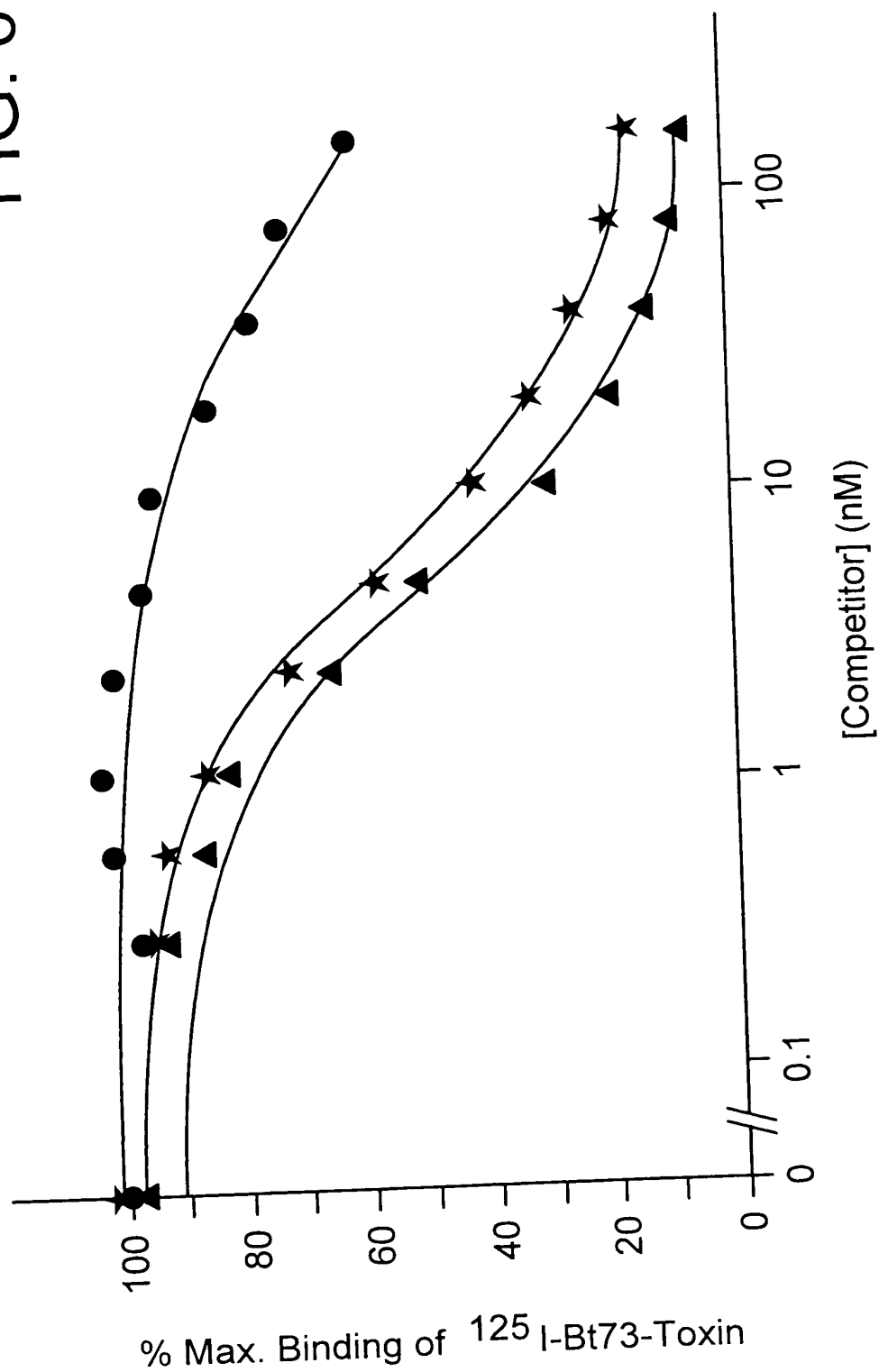


FIG. 7

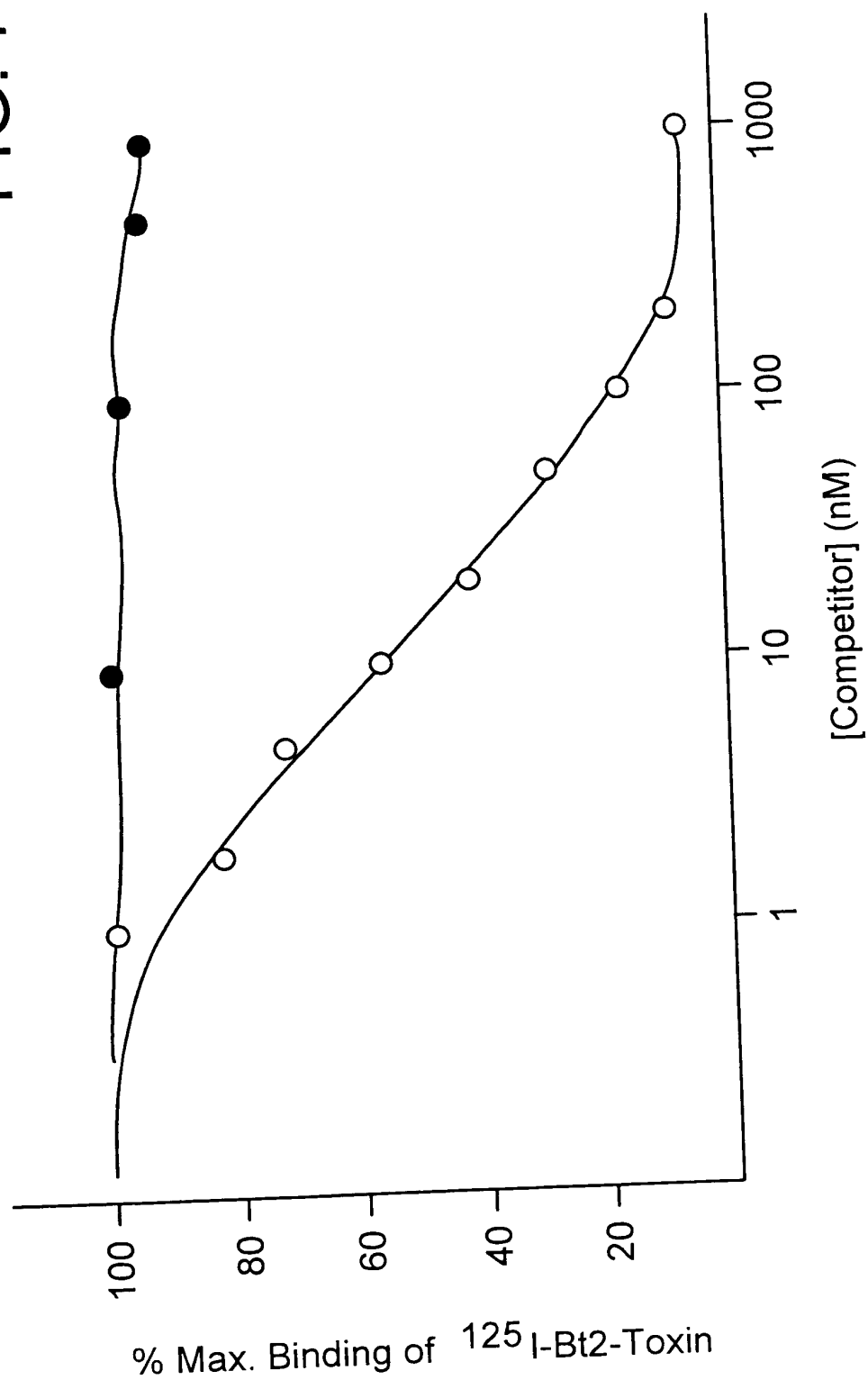


FIG. 8

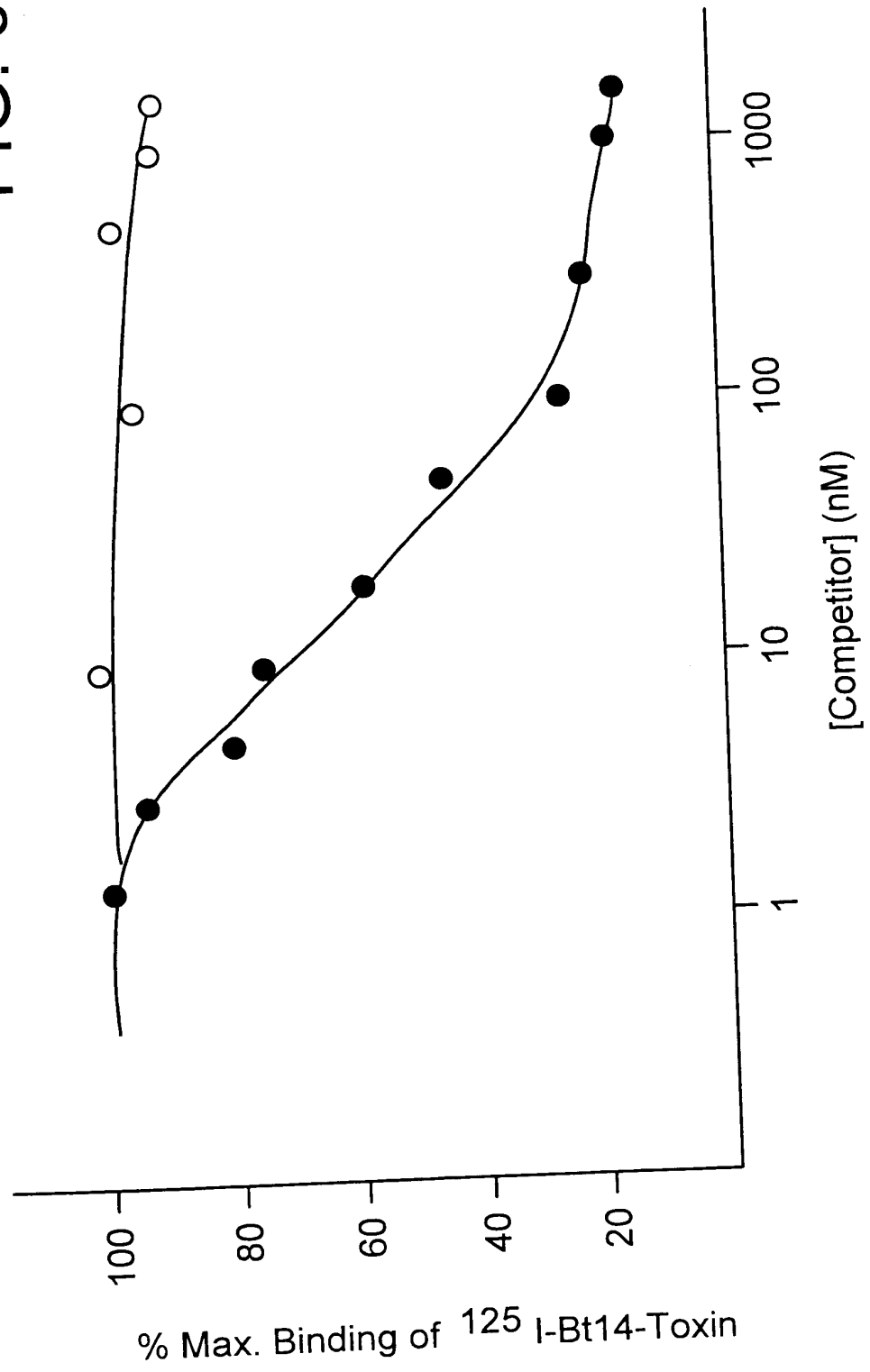


FIG. 9

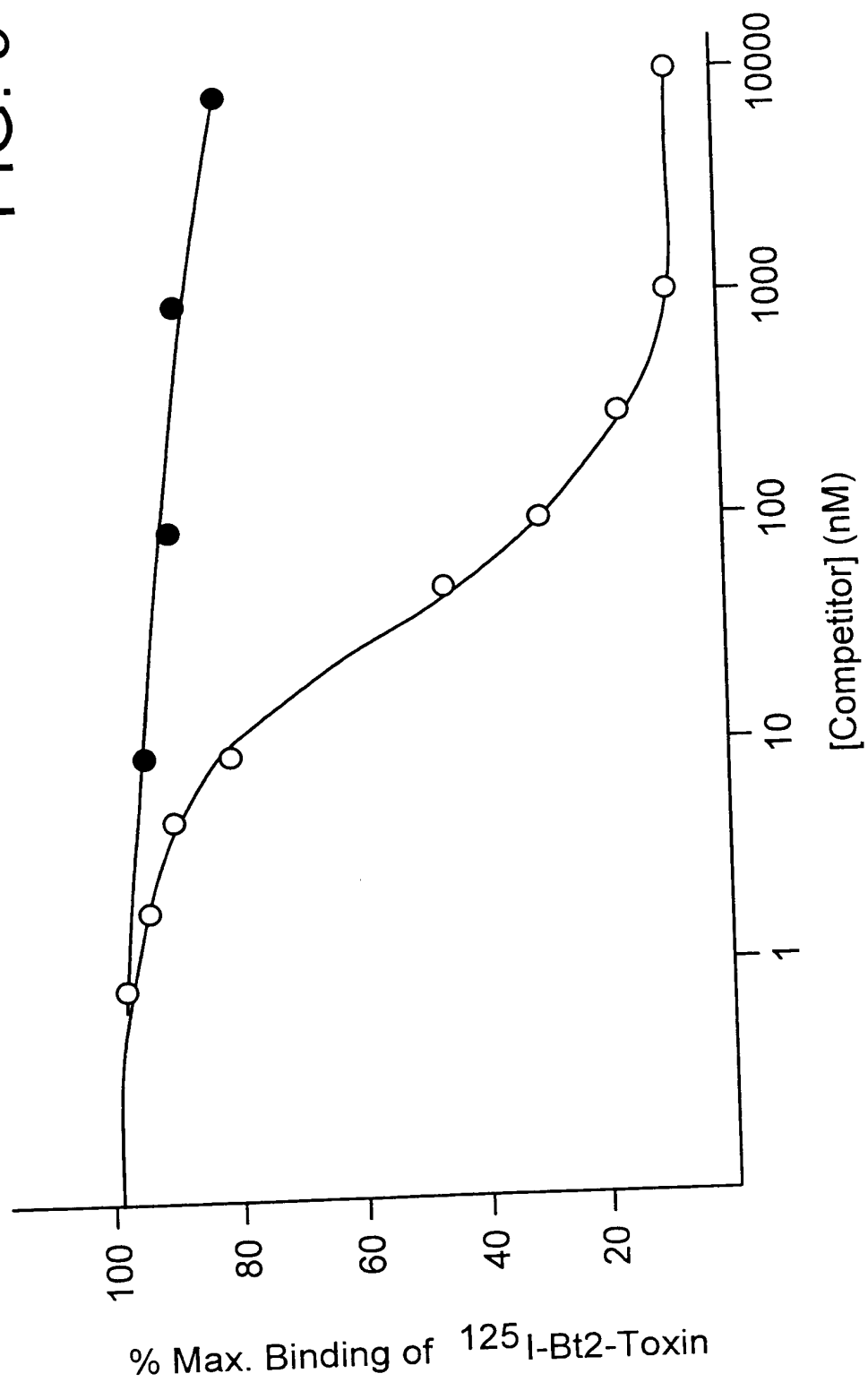


FIG. 10

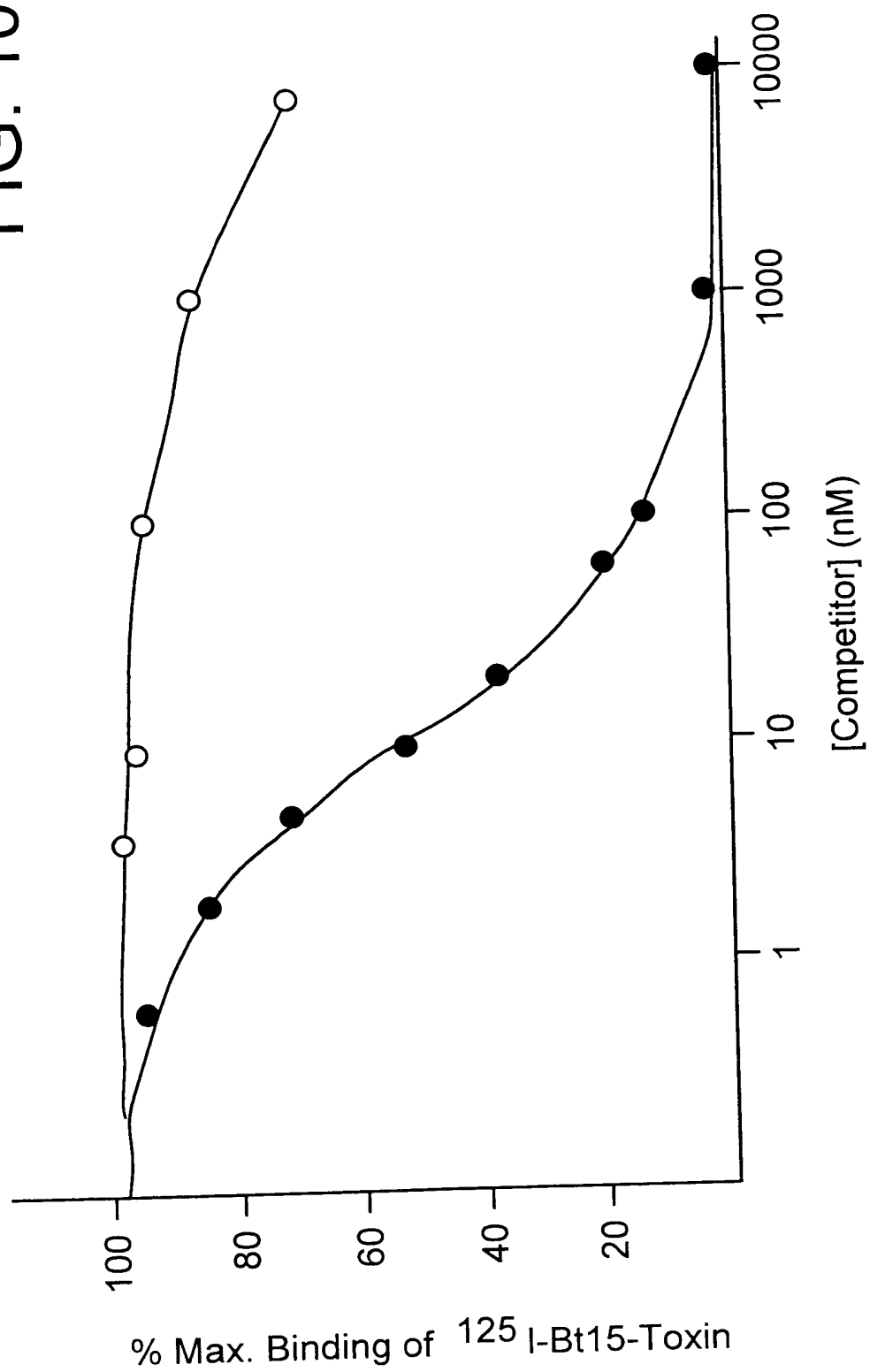


FIG. 11

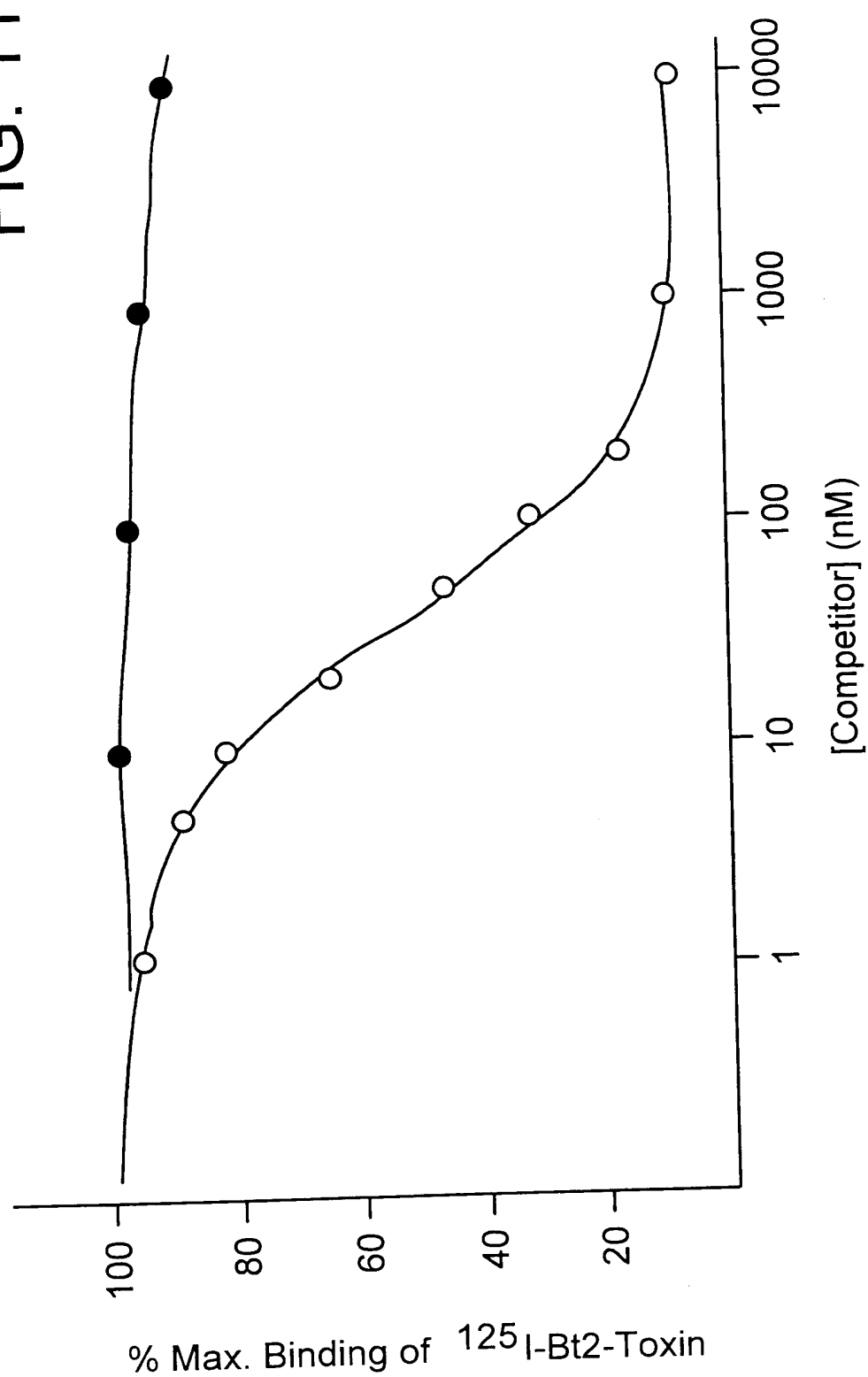


FIG. 12

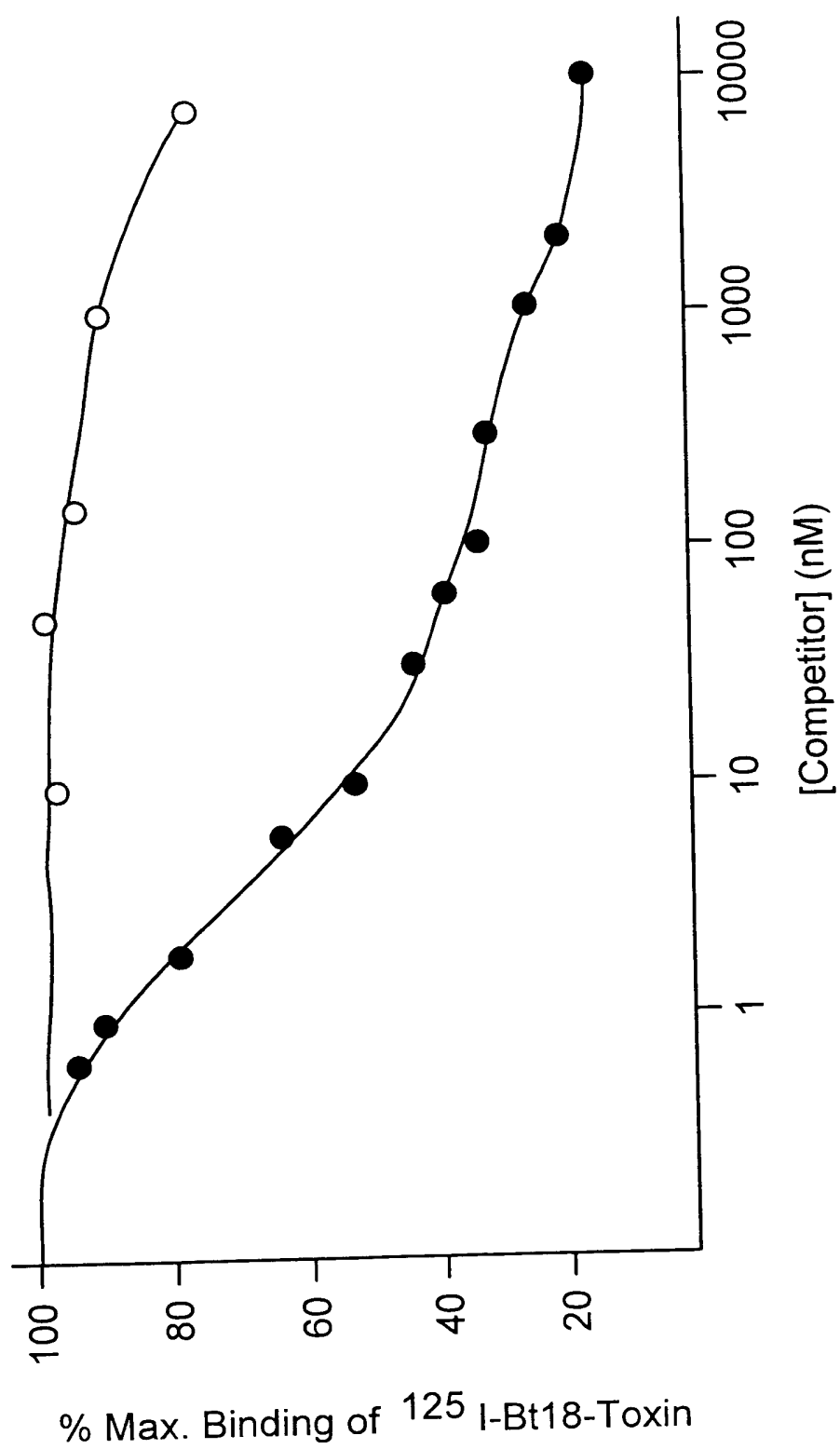


FIG. 13A

10 20 30 40 50
GGATCTGTTT TAATATAAGG GATTGTGCC CTTCTCGTTA TATTCTTTTA

60 70 80 90 100
TTAGCCCCAA AAAGTAGTGC AACTAAATAT TTTTATAATT AACTGATTA

110 120 130 140 150
AATACTTTAT TTTTGGGAGT AAGATTTATG CTGAAATGTA ATAAATTGCG

160 170 180 190 200
TTCCATTTTC TGTATTTTCT CATAAAATGT TTCATATGCT TTAAATTGTA

210 220 230 240 250
GTAAAGAAAA ACAGTACAAA CTAAAAGGA CTTTAGTAAT TTAATAAAAA

260 269 278 287
AAGGGGATAG TTT ATG GAA ATA AAT AAT CAA AAC CAA TGT
MET Glu Ile Asn Asn Gln Asn Gln Cys

FIG. 13B

296	305	314	323	
GTG	CCT	TAC	AAT	TGT
Val	Pro	Tyr	Asn	Cys
				Leu
				Ser
				Asn
				Pro
				Lys
				Glu
				Ile
				Ile
332	341	350	359	368
TTA	GGC	GAG	GAA	AGG
Leu	Gly	Glu	Glu	Arg
				Leu
				Glu
				Thr
				Gly
				Asn
				Thr
				Val
				Ala
377	386	395	404	
GAC	ATT	TCA	TTA	GGG
Asp	Ile	Ser	Leu	Gly
				Leu
				Ile
				Asn
				Phe
				Leu
				Tyr
				Ser
				Asn
413	422	431	440	
TTT	GTA	CCA	GGA	GGA
Phe	Val	Pro	Gly	Gly
				Gly
				Phe
				Ile
				Val
				Gly
				Leu
				Leu
				Glu
449	458	467	476	485
TTA	ATA	TGG	GGA	TTT
Leu	Ile	Trp	Gly	Phe
				Ile
				Gly
				Pro
				Ser
				Gln
				Trp
				Asp
				Ile
494	503	512	521	
TTT	TTA	GCT	CAA	ATT
Phe	Leu	Ala	Gln	Ile
				Glu
				Gln
				Leu
				Ile
				Ser
				Gln
				Arg
				Ile

FIG. 13C

530	539	548	557	
GAA	GAA	TTT	GCT	AGG
Glu	Glu	Phe	Ala	Arg
	Asn	Gln	Ala	Ile
	Ser	Arg	Leu	Glu
566	575	584	593	602
GGG	CTA	AGC	AAT	CTT
Gly	Leu	Ser	Asn	Leu
	Tyr	Lys	Val	Tyr
	Val	Arg	Ala	Phe
611	620	629	638	
AGC	GAC	TGG	GAG	AAA
Ser	Asp	Trp	Glu	Lys
	Asp	Pro	Thr	Asn
	Pro	Ala	Leu	Arg
647	656	665	674	
GAA	GAA	ATG	CGT	ATA
Glu	Glu	MET	Arg	Ile
	Gln	Phe	Asn	Asp
	MET	Asn	Ser	Ala
683	692	701	710	719
CTC	ATA	ACG	GCT	ATT
Leu	Ile	Thr	Ala	Ile
	Pro	Leu	Phe	Arg
	Val	Gln	Asn	Tyr
728	737	746	755	
GAA	GTT	GCT	CTT	TTA
Glu	Val	Ala	Leu	Leu
	Ser	Val	Tyr	Val
	Gln	Ala	Ala	Asn

FIG. 13D

764	773	782	791	
TTA	CAT	TTA	TCT	ATT
Leu	His	Leu	Ser	Ile
		Leu	Arg	Asp
		Val	Ser	Val
			Phe	Gly
800	809	818	827	836
GAA	AGA	TGG	GGA	TAT
Glu	Arg	Trp	Gly	Tyr
		Asp	Thr	Ala
			Thr	Ile
			Asn	Asn
				Arg
	845	854	863	872
TAT	AGT	GAT	CTG	ACT
Tyr	Ser	Asp	Leu	Thr
		Ser	Leu	Ile
			His	Val
			Tyr	Thr
				Asn
	881	890	899	908
CAT	TGT	GTG	GAT	ACG
His	Cys	Val	Asp	Thr
			Tyr	Asn
			Gln	Gly
			Leu	Arg
			Arg	Leu
917	926	935	944	953
GAA	GGT	CGT	TTT	CTT
Glu	Gly	Arg	Phe	Leu
		Ser	Asp	Trp
			Ile	Val
			Tyr	Asn
				Arg
	962	971	980	989
TTC	CGG	AGA	CAA	TTG
Phe	Arg	Arg	Gln	Leu
			Thr	Ile
			Ser	Val
			Leu	Asp
				Ile
				Val

FIG. 13E

998	1007	1016	1025	
GCG TTT TTT CCA AAT TAT GAT ATT AGA ACA TAT CCA ATT				
Ala Phe Phe Pro Asn Tyr Asp Ile Arg Thr Tyr Pro Ile				
1034	1043	1052	1061	1070
CAA ACA GCT ACT CAG CTA ACG AGG GAA GTC TAT CTG GAT				
Gln Thr Ala Thr Gln Leu Thr Arg Glu Val Tyr Leu Asp				
1079	1088	1097	1106	
TTA CCT TTT ATT AAT CAA AAT CTT TCT CCT GCA GCA AGC				
Leu Pro Phe Ile Asn Glu Asn Leu Ser Pro Ala Ala Ser				
1115	1124	1133	1142	
TAT CCA ACC TTT TCA GCT GCT GAA AGT GCT ATA ATT AGA				
Tyr Pro Thr Phe Ser Ala Ala Glu Ser Ala Ile Ile Arg				
1151	1160	1169	1178	1187
AGT CCT CAT TTA GTA GAC TTT TTA AAT AGC TTT ACC ATT				
Ser Pro His Leu Val Asp Phe Leu Asn Ser Phe Thr Ile				
1196	1205	1214	1223	
TAT ACA GAT AGT CTG GCA CGT TAT GCA TAT TGG GGA GGG				
Tyr Thr Asp Ser Leu Ala Arg Tyr Ala Tyr Trp Gly Gly				

FIG. 13F

1232	1241	1250	1259
CAC	TTG	GTA	AAT
His	Leu	Val	Asn
TCT	TTC	CGC	ACA
Ser	Phe	Arg	Thr
GGA	ACC	ACT	ACT
Gly	Thr	Thr	Thr
AAT			Asn
1268	1277	1286	1295
TTG	ATA	AGA	TCC
Leu	Ile	Arg	Ser
CCT	TTA	TAT	GGA
Pro	Leu	Tyr	Gly
AGG	GAA	GGA	AAT
Arg	Glu	Gly	Asn
GAA			Thr
1304			
1313	1322	1331	1340
GAG	CGC	CCC	GTA
Glu	Arg	Pro	Val
ACT	ATT	ACC	GCA
Thr	Ile	Thr	Ala
TCA	CCT	AGC	GTA
Ser	Pro	Ser	Val
CCA			Pro
1349	1358	1367	1376
ATA	TTT	AGA	ACA
Ile	Phe	Arg	Thr
CTT	TCA	TAT	ATT
Leu	Ser	Tyr	Ile
ACA	GGC	CTT	GAC
Thr	Gly	Leu	Asp
AAT			Asn
1385	1394	1403	1412
TCA	AAT	CCT	GTA
Ser	Asn	Pro	Val
GCT	GGA	ATC	GAG
Ala	Gly	Ile	Glu
GTG	GAA	TTC	CAA
Val	Glu	Phe	Gln
1430	1439	1448	1457
AAT	ACT	ATA	AGT
Asn	Thr	Ile	Ser
AGA	AGT	ATC	TAT
Arg	Ser	Ile	Tyr
CGT	AAA	AGC	GGT
Arg	Lys	Ser	Gly
CCA			Pro

FIG. 13G

1466 1475 1484 1493
ATA GAT TCT TTT AGT GAA TTA CCA CCT CAA GAT GCC AGC
Ile Asp Ser Phe Ser Glu Leu Pro Pro Gln Asp Ala Ser

1502 1511 1520 1529 1538
GTA TCT CCT GCA ATT GGG TAT AGT CAC CGT TTA TGC CAT
Val Ser Pro Ala Ile Gly Tyr Ser His Arg Leu Cys His

1547 1556 1565 1574
GCA ACA TTT TTA GAA CGG ATT AGT GGA CCA AGA ATA GCA
Ala Thr Phe Leu Glu Arg Ile Ser Gly Pro Arg Ile Ala

1583 1592 1601 1610
GGC ACC GTA TTT TCT TGG ACA CAC CGT AGT GCC AGC CCT
Gly Thr Val Phe Ser Trp Thr His Arg Ser Ala Ser Pro

1619 1628 1637 1646 1655
ACT AAT GAA GTA AGT CCA TCT AGA ATT ACA CAA ATT CCA
Thr Asn Glu Val Ser Pro Ser Arg Ile Thr Gln Ile Pro

1664 1673 1682 1691
TGG GTA AAG GCG CAT ACT CTT GCA TCT GGT GCC TCC GTC
Trp Val Lys Ala His Thr Leu Ala Ser Gly Ala Ser Val

FIG. 13H

1700	1709	1718	1727	
ATT AAA GGT CCT GGA TTT ACA GGT GGA GAT ATT CTG ACT				
Ile	Lys	Gly	Pro Gly Phe Thr Gly Gly Asp Ile Leu Thr	
1736	1745	1754	1763	1772
AGG AAT AGT ATG GGC GAG CTG GGG ACC TTA CGA GTA ACC				
Arg	Asn	Ser	MET Gly Glu Leu Gly Thr Leu Arg Val Thr	
1781	1790	1799	1808	
TTC ACA GGA AGA TTA CCA CAA AGT TAT TAT ATA CGT TTC				
Phe	Thr	Gly	Arg Leu Pro Gln Ser Tyr Tyr Ile Arg Phe	
1817	1826	1835	1844	
CGT TAT GCT TCG GTA GCA AAT AGG AGT GGT ACA TTT AGA				
Arg	Tyr	Ala	Ser Val Ala Asn Arg Ser Gly Thr Phe Arg	
1853	1862	1871	1880	1889
TAT TCA CAG CCA CCT TCG TAT GGA ATT TCA TTT CCA AAA				
Tyr	Ser	Gln	Pro Pro Ser Tyr Gly Ile Ser Phe Pro Lys	
1898	1907	1916	1925	
ACT ATG GAC GCA GGT GAA CCA CTA ACA TCT CGT TCG TTC				
Thr	MET	Asp	Ala Gly Glu Pro Leu Thr Ser Arg Ser Phe	

FIG. 131

1934	1943	1952	1961
GCT CAT ACA ACA CTC TTC ACT CCA ATA ACC TTT TCA CGA			
Ala His Thr Thr Leu Phe Thr Pro Ile Thr Phe Ser Arg			
1970	1979	1988	1997
GCT CAA GAA GAA TTT GAT CTA TAC ATC CAA TCG GGT GTT			
Ala Gln Glu Glu Phe Asp Leu Tyr Ile Gln Ser Gly Val			

2015	2024	2033	2042
TAT ATA GAT CGA ATT GAA TTT ATA CCG GTT ACT GCA ACA			
Tyr Ile Asp Arg Ile Glu Phe Ile Pro Val Thr Ala Thr			
----->			
2051	2060	2069	2078
TTT GAG GCA GAA TAT GAT TTA GAA AGA GCG CAA AAG GTG			
Phe Glu Ala Glu Tyr Asp Leu Glu Arg Ala Gln Lys Val			
2087	2096	2105	2114
GTG AAT GCC CTG TTT ACG TCT ACA AAC CAA CTA GGG CTA			
Val Asn Ala Leu Phe Thr Ser Thr Asn Gln Leu Gly Leu			
2132	2141	2150	2159
AAA ACA GAT GTG ACG GAT TAT CAT ATT GAT CAG GTA TCC			
Lys Thr Asp Val Thr Asp Tyr His Ile Asp Gln Val Ser			

FIG. 13J

2168	2177	2186	2195	
AAT CTA GTT GCG TGT TTA TCG GAT GAA TTT TGT CTG GAT				
Asn Leu Val Ala Cys Leu Ser Asp Glu Phe Cys Leu Asp				
2204	2213	2222	2231	2240
GAA AAG AGA GAA TTG TCC GAG AAA GTT AAA CAT GCA AAG				
Glu Lys Arg Glu Leu Ser Glu Lys Val Lys His Ala Lys				
2249	2258	2267	2276	
CGA CTC AGT GAT GAG CGG AAT TTA CTT CAA GAT CCA AAC				
Arg Leu Ser Asp Glu Arg Asn Leu Leu Gln Asp Pro Asn				
2285	2294	2303	2312	
TTC AGA GGG ATC AAT AGG CAA CCA GAC CGT GGC TGG AGA				
Phe Arg Gly Ile Asn Arg Gln Pro Asp Arg Gly Trp Arg				
2321	2330	2339	2348	2357
GGA AGT ACG GAT ATT ACT ATC CAA GGA GGA GAT GAC GTA				
Gly Ser Thr Asp Ile Thr Ile Gln Gly Gly Asp Asp Val				
2366	2375	2384	2393	
TTC AAA GAG AAT TAC GTT ACG CTA CCG GGT ACC TTT GAT				
Phe Lys Glu Asn Tyr Val Thr Leu Pro Gly Thr Phe Asp				

FIG. 13K

2402	2411	2420	2429	
GAG TGC TAT CCA ACG TAT TTA TAT CAA AAA ATA GAT GAG				
Glu Cys Tyr Pro Thr Tyr Leu Tyr Gln Lys Ile Asp Glu				
2438	2447	2456	2465	2474
TCG AAA TTA AAA GCC TAT ACC CGT TAT CAA TTA AGA GGG				
Ser Lys Leu Lys Ala Tyr Thr Arg Tyr Gln Leu Arg Gly				
2483	2492	2501	2510	
TAT ATC GAA GAT AGT CAA GAC TTA GAA ATC TAT TTA ATT				
Tyr Ile Glu Asp Ser Gln Asp Leu Glu Ile Tyr Leu Ile				
2519	2528	2537	2546	
CGT TAC AAT GCA AAA CAC GAA ATA GTA AAT GTA CCA GGT				
Arg Tyr Asn Ala Lys His Glu Ile Val Asn Val Pro Gly				
2555	2564	2573	2582	2591
ACA GGA AGT TTA TGG CCT CTT TCT GTA GAA AAT CAA ATT				
Thr Gly Ser Leu Trp Pro Leu Ser Val Glu Asn Gln Ile				
2600	2609	2618	2627	
GGA CCT TGT GGA GAA CCG AAT CGA TGC GCG CCA CAC CTT				
Gly Pro Cys Gly Glu Pro Asn Arg Cys Ala Pro His Leu				

FIG. 13L

2636	2645	2654	2663	
GAA TGG AAT CCT GAT TTA CAC TGT TCC TGC AGA GAC GGG				
Glu Trp Asn Pro Asp Leu His Cys Ser Cys Arg Asp Gly				
2672	2681	2690	2699	2708
GAA AAA TGT GCA CAT CAT TCT CAT CAT TTC TCT TTG GAC				
Glu Lys Cys Ala His His Ser His His Phe Ser Leu Asp				
2717	2726	2735	2744	
ATT GAT GTT GGA TGT ACA GAC TTA AAT GAG GAC TTA GGT				
Ile Asp Val Gly Cys Thr Asp Leu Asn Glu Asp Leu Gly				
2753	2762	2771	2780	
GTA TGG GTG ATA TTC AAG ATT AAG ACG CAA GAT GGC CAC				
Val Trp Val Ile Phe Lys Ile Lys Thr Gln Asp Gly His				
2789	2798	2807	2816	2825
GCA CGA CTA GGG AAT CTA GAG TTT CTC GAA GAG AAA CCA				
Ala Arg Leu Gly Asn Leu Glu Phe Leu Glu Glu Lys Pro				
2834	2843	2852	2861	
TTA TTA GGA GAA GCA CTA GCT CGT GTG AAA AGA GCG GAG				
Leu Leu Gly Glu Ala Leu Ala Arg Val Lys Arg Ala Glu				

FIG. 13M

2870	2879	2888	2897	
AAA AAA TGG AGA GAC AAA CGC GAA ACA TTA CAA TTG GAA				
Lys Lys Trp Arg Asp Lys Arg Glu Thr Leu Gln Leu Glu				
2906	2915	2924	2933	2942
ACA ACT ATC GTT TAT AAA GAG GCA AAA GAA TCT GTA GAT				
Thr Thr Ile Val Tyr Lys Glu Ala Lys Glu Ser Val Asp				
2951	2960	2969	2978	
GCT TTA TTT GTA AAC TCT CAA TAT GAT AGA TTA CAA GCG				
Ala Leu Phe Val Asn Ser Gln Tyr Asp Arg Leu Gln Ala				
2987	2996	3005	3014	
GAT ACG AAC ATC GCG ATG ATT CAT GCG GCA GAT AAA CGC				
Asp Thr Ash Ile Ala MET Ile His Ala Ala Asp Lys Arg				
3023	3032	3041	3050	3059
GTT CAT AGA ATT CGA GAA GCG TAT CTG CCG GAG CTG TCT				
Val His Arg Ile Arg Glu Ala Tyr Leu Pro Glu Leu Ser				
3068	3077	3086	3095	
GTG ATT CCG GGT GTC AAT GCG GCT ATT TTT GAA GAA TTA				
Val Ile Pro Gly Val Asn Ala Ala Ile Phe Glu Glu Leu				

FIG. 13N

3104	3113	3122	3131									
GAA	GAG	CGT	ATT	TTC	ACT	GCA	TTT	TCC	CTA	TAT	GAT	GCG
Glu	Glu	Arg	Ile	Phe	Thr	Ala	Phe	Ser	Leu	Tyr	Asp	Ala
3140	3149	3158	3167	3176								
AGA	AAT	ATT	ATT	AAA	AAT	GGC	GAT	TTC	AAT	AAT	GGC	TTA
Arg	Asn	Ile	Ile	Lys	Asn	Gly	Asp	Phe	Asn	Asn	Gly	Leu
3185	3194	3203	3212									
TTA	TGC	TGG	AAC	GTG	AAA	GGG	CAT	GTA	GAG	GTA	GAA	GAA
Leu	Cys	Trp	Asn	Val	Lys	Gly	His	Val	Glu	Val	Glu	Glu
3221	3230	3239	3248									
CAA	AAC	AAT	CAC	CGT	TCA	GTC	CTG	GTT	ATC	CCA	GAA	TGG
Gln	Asn	Asn	His	Arg	Ser	Val	Leu	Val	Ile	Pro	Glu	Trp
3257	3266	3275	3284	3293								
GAG	GCA	GAA	GTG	TCA	CAA	GAG	GTT	CGT	GTC	TGT	CCA	GGT
Glu	Ala	Glu	Val	Ser	Gln	Glu	Val	Arg	Val	Cys	Pro	Gly
3302	3311	3320	3329									
CGT	GGC	TAT	ATC	CTT	CGT	GTT	ACA	GCG	TAC	AAA	GAG	GGA
Arg	Gly	Tyr	Ile	Leu	Arg	Val	Thr	Ala	Tyr	Lys	Glu	Gly

FIG. 13P

3338	3347	3356	3365	
TAT	GGA	GAA	GGT TGC GTA ACG ATC CAT GAG ATC GAG AAC	
Tyr	Gly	Glu	Gly Cys Val Thr Ile His Glu Ile Glu Asn	
3374	3383	3392	3401	3410
AAT	ACA	GAC	GAA CTG AAA TTC AAC AAC TGT GTA GAA GAG	
Asn	Thr	Asp	Glu Leu Lys Phe Asn Asn Cys Val Glu Glu	
3419	3428	3437	3446	
GAA	GTA	TAT	CCA AAC AAC ACG GTA ACG TGT ATT AAT TAT	
Glu	Val	Tyr	Pro Asn Asn Thr Val Thr Cys Ile Asn Tyr	
3455	3464	3473	3482	
ACT	GCG	ACT	CAA GAA GAA TAT GAG GGT ACG TAC ACT TCT	
Thr	Ala	Thr	Gln Glu Glu Tyr Glu Gly Thr Tyr Thr Ser	
3491	3500	3509	3518	3527
CGT	AAT	CGA	GGA TAT GAC GAA GCC TAT GGT AAT AAC CCT	
Arg	Asn	Arg	Gly Tyr Asp Glu Ala Tyr Gly Asn Asn Pro	
3536	3545	3554	3563	
TCC	GTA	CCA	GCT GAT TAT GCG TCA GTC TAT GAA GAA AAA	
Ser	Val	Pro	Ala Asp Tyr Ala Ser Val Tyr Glu Glu Lys	

FIG. 13Q

3572	3581	3590	3599	
TCG	TAT	ACA	GAT AGA CGA AGA GAG AAT CCT TGT GAA TCT	
Ser	Tyr	Thr	Asp Arg Arg Arg Glu Asn Pro Cys Glu Ser	
3608	3617	3626	3635	3644
AAC	AGA	GGA	TAT GGA GAT TAC ACA CCA CTA CCA GCT GGT	
Asn	Arg	Gly	Tyr Gly Asp Tyr Thr Pro Leu Pro Ala Gly	
3653	3662	3671	3680	
TAT	GTA	ACA	AAG GAA TTA GAG TAC TTC CCA GAG ACC GAT	
Tyr	Val	Thr	Lys Glu Leu Glu Tyr Phe Pro Glu Thr Asp	
3689	3698	3707	3716	
AAG	GTA	TGG	ATT GAG ATT GGA GAA ACA GAA GGA ACA TTC	
Lys	Val	Trp	Ile Glu Ile Gly Glu Thr Glu Gly Thr Phe	
3725	3734	3743	3752	3761
ATC	GTG	GAC	AGC GTG GAA TTA CTC CTT ATG GAG GAA TAG	
Ile	Val	Asp	Ser Val Glu Leu Leu Leu MET Glu Glu •	

FIG. 13R

3771 3781 3791 3801 3811
GACCATCCGAGTATAGCAGT TTAATAAATA TTAATTAAAA TAGTAGTCTA

3821 3831 3841 3851 3861
ACTTCCGTTC CAATTAAATA AGTAAATTAC AGTTGTAAAA AAAAACGAAC

3871 3881 3891 3901
ATTACTCTTC AAAGAGCGAT GTCCGTTTTT TATATGGTGT GT

FIG. 14A

10	20	30	40	50
AATAGAATCT CAAATCTCGA TGA CTGCTTA GTCTTTTAA TACTGTCTAC				
60	70	80	90	100
TTGACAGGGGTAGGAACATA ATCGGTCAAT TTAAATATG GGGCATATAT				
110	120	130	140	150
TGATATTTTA TAA AATTTGT TACGTTTTTT GTATTTTTTC ATAAGATGTG				
160	170	180	190	200
TCATATGTAT TAAATCGTGG TAATGAAAAA CAGTATCAAA CTATCAGAAC				
210	220	230	239	
TTTGGTAGTT TAATAAAAAA ACGGAGGTAT TTT ATG GAG GAA				
		-----	MET	Glu Glu
248	257	266	275	
AAT AAT CAA AAT CAA TGC ATA CCT TAC AAT TGT TTA AGT				
Asn Asn Gln Asn Gln Cys Ile Pro Tyr Asn Cys Leu Ser				
284	293	302	311	320
AAT CCT GAA GAA GTA CTT TTG GAT GGA GAA CGG ATA TCA				
Asn Pro Glu Glu Val Leu Leu Asp Gly Glu Arg Ile Ser				

FIG. 14B

	329		338		347		356
ACT	GGT	AAT	TCA	TCA	ATT	GAT	ATT
Thr	Gly	Asn	Ser	Ser	Ile	Asp	Ile
						Ser	Leu
						Ser	Leu
							Val
	365		374		383		392
CAG	TTT	ATG	GTA	TCT	AAC	TTT	GTA
Gln	Phe	Leu	Val	Ser	Asn	Phe	Val
						Pro	Gly
						Gly	Gly
						Gly	Phe
401		410		419		428	
TTA	GTT	GGA	TTA	ATA	GAT	TTT	GTA
Leu	Val	Gly	Leu	Ile	Asp	Phe	Val
						Trp	Gly
						Ile	Val
							Gly
	446		455		464		473
CCT	TCT	CAA	TGG	GAT	GCA	TTT	CTA
Pro	Ser	Gln	Trp	Asp	Ala	Phe	Leu
						Val	Gln
						Ile	Glu
							Gln
	482		491		500		509
TTA	ATT	AAT	GAA	AGA	ATA	GCT	GAA
Leu	Ile	Asn	Glu	Arg	Ile	Ala	Glu
						Phe	Ala
						Arg	Asn
							Ala
518		527		536		545	
GCT	ATT	GCT	AAT	TTA	GAA	GGA	TTA
Ala	Ile	Ala	Asn	Leu	Glu	Gly	Leu
						Asn	Asn
						Phe	Asn

FIG. 14C

563 572 581 590
 ATA TAT GTG GAA GCA TTT AAA GAA TGG GAA GAA GAT CCT
 Ile Tyr Val Glu Ala Phe Lys Glu Trp Glu Glu Asp Pro

599 608 617 626
 AAT AAT CCA GAA ACC AGG ACC AGA GTA ATT GAT CGC TTT
 Asn Asn Pro Glu Thr Arg Thr Arg Val Ile Asp Arg Phe

635 644 653 662 671
 CGT ATA CTT GAT GGG CTA CTT GAA AGG GAC ATT CCT TCG
 Arg Ile Leu Asp Gly Leu Leu Glu Arg Asp Ile Pro Ser

680 689 698 707
 TTT CGA ATT TCT GGA TTT GAA GTA CCC CTT TTA TCC GTT
 Phe Arg Ile Ser Gly Phe Glu Val Pro Leu Leu Ser Val

716 725 734 743
 TAT GCT CAA GCG GCC AAT CTG CAT CTA GCT ATA TTA AGA
 Tyr Ala Gln Ala Ala Asn Leu His Leu Ala Ile Leu Arg

752 761 770 779 788
 GAT TCT GTA ATT TTT GGA GAA AGA TGG GGA TTG ACA ACG
 Asp Ser Val Ile Phe Gly Glu Arg Trp Gly Leu Thr Thr

FIG. 14D

797	806	815	824	
ATA AAT GTC AAT GAA AAC TAT AAT AGA CTA ATT AGG CAT				
Ile Asn Val Asn Glu Asn Tyr Asn Arg Leu Ile Arg His				
833	842	851	860	
ATT GAT GAA TAT GCT GAT CAC TGT GCA AAT ACG TAT AAT				
Ile Asp Glu Tyr Ala Asp His Cys Ala Asn Thr Tyr Asn				
869	878	887	896	905
CGG GGA TTA AAT AAT TTA CCG AAA TCT ACG TAT CAA GAT				
Arg Gly Leu Asn Asn Leu Pro Lys Ser Thr Tyr Gln Asp				
914	923	932	941	
TGG ATA ACA TAT AAT CGA TTA CGG AGA GAC TTA ACA TTG				
Trp Ile Thr Tyr Asn Arg Leu Arg Arg Asp Leu Thr Leu				
950	959	968	977	
ACT GTA TTA GAT ATC GCC GCT TTC TTT CCA AAC TAT GAC				
Thr Val Leu Asp Ile Ala Ala Phe Phe Pro Asn Tyr Asp				
986	995	1004	1013	1022
AAT AGG AGA TAT CCA ATT CAG CCA GTT GGT CAA CTA ACA				
Asn Arg Arg Tyr Pro Ile Gln Pro Val Gly Gln Leu Thr				

FIG. 14E

1031	1040	1049	1058	
AGG GAA GTT TAT ACG GAC CCA TTA ATT AAT TTT AAT CCA				
Arg Glu Val Tyr Thr Asp Pro Leu Ile Asn Phe Asn Pro				
1067	1076	1085	1094	
CAG TTA CAG TCT GTA GCT CAA TTA CCT ACT TTT AAC GTT				
Gln Leu Gln Ser Val Ala Gln Leu Pro Thr Phe Asn Val				
1103	1112	1121	1130	1139
ATG GAG AGC AGC GCA ATT AGA AAT CCT CAT TTA TTT GAT				
MET Glu Ser Ser Ala Ile Arg Asn Pro His Leu Phe Asp				
1148	1157	1166	1175	
ATA TTG AAT AAT CTT ACA ATC TTT ACG GAT TGG TTT AGT				
Ile Leu Asn Asn Leu Thr Ile Phe Thr Asp Trp Phe Ser				
1184	1193	1202	1211	
GTT GGA CGC AAT TTT TAT TGG GGA GGA CAT CGA GTA ATA				
Val Gly Arg Asn Phe Tyr Trp Gly Gly His Arg Val Ile				
1220	1229	1238	1247	1256
TCT AGC CTT ATA GGA GGT GGT AAC ATA ACA TCT CCT ATA				
Ser Ser Leu Ile Gly Gly Gly Asn Ile Thr Ser Pro Ile				

FIG. 14F

1265	1274	1283	1292
TAT	GGA	AGA	GAG
GCG	AAC	CAG	GAG
CCT	CCA	AGA	TCC
TTT			
Tyr	Gly	Arg	Glu
Ala	Asn	Gln	Glu
Pro	Pro	Arg	Ser
Phe			
1301	1310	1319	1328
ACT	TTT	AAT	GGA
CCG	GTA	TTT	AGG
ACT	TTA	TCA	AAT
CCT			
Thr	Phe	Asn	Gly
Pro	Val	Phe	Arg
Thr	Leu	Ser	Asn
Pro			
1337	1346	1355	1364
1373			
ACT	TTA	CGA	TTA
TTA	CAG	CAA	CCT
TGG	CCA	GCG	CCA
CCA			
Thr	Leu	Arg	Leu
Leu	Gln	Gln	Pro
Trp	Pro	Ala	Pro
Pro			
1382	1391	1400	1409
TTT	AAT	TTA	CGT
GGT	GTT	GAA	GGA
GTA	GAA	TTT	TCT
ACA			
Phe	Ash	Leu	Arg
Gly	Val	Glu	Gly
Val	Glu	Phe	Ser
Thr			
1418	1427	1436	1445
CCT	ACA	AAT	AGC
TTT	ACG	TAT	CGA
GGA	AGA	GGT	ACG
GTT			
Pro	Thr	Asn	Ser
Phe	Thr	Tyr	Arg
Gly	Arg	Gly	Thr
Val			
1454	1463	1472	1481
1490			
GAT	TCT	TTA	ACT
GAA	TTA	CCG	CCT
GAG	GAT	AAT	AGT
GTG			
Asp	Ser	Leu	Thr
Glu	Leu	Pro	Pro
Glu	Asp	Asn	Ser
Val			

FIG. 14G

1499 1508 1517 1526
CCA CCT CGC GAA GGA TAT AGT CAT CGT TTA TGT CAT GCA
Pro Pro Arg Glu Gly Tyr Ser His Arg Leu Cys His Ala

1535 1544 1553 1562
ACT TTT GTT CAA AGA TCT GGA ACA CCT TTT TTA ACA ACT
Thr Phe Val Gln Arg Ser Gly Thr Pro Phe Leu Thr Thr

1571 1580 1589 1598 1607
GGT GTA GTA TTT TCT TGG ACG CAT CGT AGT GCA ACT CTT
Gly Val Val Phe Ser Trp Thr His Arg Ser Ala Thr Leu

1616 1625 1634 1643
ACA AAT ACA ATT GAT CCA GAG AGA ATT AAT CAA ATA CCT
Thr Asn Thr Ile Asp Pro Glu Arg Ile Asn Gln Ile Pro

1652 1661 1670 1679
TTA GTG AAA GGA TTT AGA GTT TGG GGG GGC ACC TCT GTC
Leu Val Lys Gly Phe Arg Val Trp Gly Gly Thr Ser Val

1688 1697 1706 1715 1724
ATT ACA GGA CCA GGA TTT ACA GGA GGG GAT ATC CTT CGA
Ile Thr Gly Pro Gly Phe Thr Gly Gly Asp Ile Leu Arg

FIG. 14H

1733	1742	1751	1760	
AGA AAT ACC TTT GGT GAT TTT GTA TCT CTA CAA GTC AAT				
Arg Asn Thr Phe Gly Asp Phe Val Ser Leu Gln Val Asn				
1769	1778	1787	1796	
ATT AAT TCA CCA ATT ACC CAA AGA TAC CGT TTA AGA TTT				
Ile Asn Ser Pro Ile Thr Gln Arg Tyr Arg Leu Arg Phe				
1805	1814	1823	1832	1841
CGT TAC GCT TCC AGT AGG GAT GCA CGA GTT ATA GTA TTA				
Arg Tyr Ala Ser Ser Arg Asp Ala Arg Val Ile Val Leu				
1850	1859	1868	1877	
ACA GGA GCG GCA TCC ACA GGA GTG GGA GGC CAA GTT AGT				
Thr Gly Ala Ala Ser Thr Gly Val Gly Gly Gln Val Ser				
1886	1895	1904	1913	
GTA AAT ATG CCT CTT CAG AAA ACT ATG GAA ATA GGG GAG				
Val Asn MET Pro Leu Gln Lys Thr MET Glu Ile Gly Glu				
1922	1931	1940	1949	1958
AAC TTA ACA TCT AGA ACA TTT AGA TAT ACC GAT TTT AGT				
Asn Leu Thr Ser Arg Thr Phe Arg Tyr Thr Asp Phe Ser				

FIG. 14I

1967	1976	1985	1994	
AAT CCT TTT TCA TTT AGA GCT AAT CCA GAT ATA ATT GGG				
Asn Pro Phe Ser Phe Arg Ala Asn Pro Asp Ile Ile Gly				
2003	2012	2021	2030	
ATA AGT GAA CAA CCT CTA TTT GGT GCA GGT TCT ATT AGT				
Ile Ser Glu Gln Pro Leu Phe Gly Ala Gly Ser Ile Ser				
2039	2048	2057	2066	2075
AGC GGT GAA CTT TAT ATA GAT AAA ATT GAA ATT ATT CTA				
Ser Gly Glu Leu Tyr Ile Asp Lys Ile Glu Ile Ile Leu				
2084	2093	2102	2111	
GCA GAT GCA ACA TTT GAA GCA GAA TCT GAT TTA GAA AGA				
Ala Asp Ala Thr Phe Glu Ala Glu Ser Asp Leu Glu Arg				
2120	2129	2138	2147	
GCA CAA AAG GCG GTG AAT GCC CTG TTT ACT TCT TCC AAT				
Ala Gln Lys Ala Val Asn Ala Leu Phe Thr Ser Ser Asn				
2156	2165	2174	2183	2192
CAA ATC GGG TTA AAA ACC GAT GTG ACG GAT TAT CAT ATT				
Gln Ile Gly Leu Lys Thr Asp Val Thr Asp Tyr His Ile				

FIG. 14J

2201	2210	2219	2228	
GAT CAA GTA TCC AAT TTA GTG GAT TGT TTA TCA GAT GAA				
Asp Gln Val Ser Asn Leu Val Asp Cys Leu Ser Asp Glu				
2237	2246	2255	2264	
TTT TGT CTG GAT GAA AAG CGA GAA TTG TCC GAG AAA GTC				
Phe Cys Leu Asp Glu Lys Arg Glu Leu Ser Glu Lys Val				
2273	2282	2291	2300	2309
AAA CAT GCG AAG CGA CTC AGT GAT GAG CGG AAT TTA CTT				
Lys His Ala Lys Arg Leu Ser Asp Glu Arg Asn Leu Leu				
2318	2327	2336	2345	
CAA GAT CCA AAC TTC AGA GGG ATC AAT AGA CAA CCA GAC				
Gln Asp Pro Asn Phe Arg Gly Ile Asn Arg Gln Pro Asp				
2354	2363	2372	2381	
CGT GGC TGG AGA GGA AGT ACA GAT ATT ACC ATC CAA GGA				
Arg Gly Trp Arg Gly Ser Thr Asp Ile Thr Ile Gln Gly				
2390	2399	2408	2417	2426
GGA GAT GAC GTA TTC AAA GAG AAT TAC GTC ACA CTA CCG				
Gly Asp Asp Val Phe Lys Glu Asn Tyr Val Thr Leu Pro				

FIG. 14K

2435	2444	2453	2462	
GGT ACC GTT GAT GAG TGC TAT CCA ACG TAT TTA TAT CAG				
Gly Thr Val Asp Glu Cys Tyr Pro Thr Tyr Leu Tyr Gln				
2471	2480	2489	2498	
AAA ATA GAT GAG TCG AAA TTA AAA GCT TAT ACC CGT TAT				
Lys Ile Asp Glu Ser Lys Leu Lys Ala Tyr Thr Arg Tyr				
2507	2516	2525	2534	2543
GAA TTA AGA GGG TAT ATC GAA GAT AGT CAA GAC TTA GAA				
Glu Leu Arg Gly Tyr Ile Glu Asp Ser Gln Asp Leu Glu				
2552	2561	2570	2579	
ATC TAT TTG ATC CGT TAC AAT GCA AAA CAC GAA ATA GTA				
Ile Tyr Leu Ile Arg Tyr Asn Ala Lys His Glu Ile Val				
2588	2597	2606	2615	
AAT GTG CCA GGC ACG GGT TCC TTA TGG CCG CTT TCA GCC				
Asn Val Pro Gly Thr Gly Ser Leu Trp Pro Leu Ser Ala				
2624	2633	2642	2651	2660
CAA AGT CCA ATC GGA AAG TGT GGA GAA CCG AAT CGA TGC				
Gln Ser Pro Ile Gly Lys Cys Gly Glu Pro Asn Arg Cys				

FIG. 14L

2669	2678	2687	2696	
GCG CCA CAC CTT GAA TGG AAT CCT GAT CTA GAT TGT TCC				
Ala Pro His Leu Glu Trp Asn Pro Asp Leu Asp Cys Ser				
2705	2714	2723	2732	
TGC AGA GAC GGG GAA AAA TGT GCA CAT CAT TCC CAT CAT				
Cys Arg Asp Gly Glu Lys Cys Ala His His Ser His His				
2741	2750	2759	2768	2777
TTC ACC TTG GAT ATT GAT GTT GGA TGT ACA GAC TTA AAT				
Phe Thr Leu Asp Ile Asp Val Gly Cys Thr Asp Leu Asn				
2786	2795	2804	2813	
GAG GAC TTA GGT GTA TGG GTG ATA TTC AAG ATT AAG ACG				
Glu Asp Leu Gly Val Trp Val Ile Phe Lys Ile Lys Thr				
2822	2831	2840	2849	
CAA GAT GGC CAT GCA AGA CTA GGG AAT CTA GAG TTT CTC				
Gln Asp Gly His Ala Arg Leu Gly Asn Leu Glu Phe Leu				
2858	2867	2876	2885	2894
GAA GAG AAA CCA TTA TTA GGG GAA GCA CTA GCT CGT GTG				
Glu Glu Lys Pro Leu Leu Gly Glu Ala Leu Ala Arg Val				

FIG. 14M

2903	2912	2921	2930	
AAA AGA GCG GAG AAG AAG TGG AGA GAC AAA CGA GAG AAA				
Lys Arg Ala Glu Lys Lys Trp Arg Asp Lys Arg Glu Lys				
2939	2948	2957	2966	
CTG CAG TTG GAA ACA AAT ATT GTT TAT AAA GAG GCA AAA				
Leu Gln Leu Glu Thr Asn Ile Val Tyr Lys Glu Ala Lys				
2975	2984	2993	3002	3011
GAA TCT GTA GAT GCT TTA TTT GTA AAC TCT CAA TAT GAT				
Glu Ser Val Asp Ala Leu Phe Val Asn Ser Gln Tyr Asp				
3020	3029	3038	3047	
AGA TTA CAA GTG GAT ACG AAC ATC GCG ATG ATT CAT GCG				
Arg Leu Gln Val Asp Thr Asn Ile Ala MET Ile His Ala				
3056	3065	3074	3083	
GCA GAT AAA CGC GTT CAT AGA ATC CGG GAA GCG TAT CTG				
Ala Asp Lys Arg Val His Arg Ile Arg Glu Ala Tyr Leu				
3092	3101	3110	3119	3128
CCA GAG TTG TCT GTG ATT CCA GGT GTC AAT GCG GCC ATT				
Pro Glu Leu Ser Val Ile Pro Gly Val Asn Ala Ala Ile				

FIG. 14N

3137	3146	3155	3164
TTC	GAA	GAA	TTA
GAG	GGA	CGT	ATT
TTT	ACA	GCG	TAT
TCC			
Phe	Glu	Glu	Leu
Glu	Gly	Arg	Ile
Phe	Thr	Ala	Tyr
Ser			
3173	3182	3191	3200
TTA	TAT	GAT	GCG
AGA	AAT	GTC	ATT
AAA	AAT	GGC	GAT
TTC			
Leu	Tyr	Asp	Ala
Arg	Asn	Val	Ile
Lys	Asn	Gly	Asp
Phe			
3209	3218	3227	3236
3245			
AAT	AAT	GGC	TTA
TTA	TGC	TGG	AAC
GTG	AAA	GGT	CAT
GTA			
Asn	Asn	Gly	Leu
Leu	Cys	Trp	Asn
Val	Lys	Gly	His
Val			
3254	3263	3272	3281
GAT	GTA	GAA	GAG
CAA	AAC	AAC	CAC
CGT	TCG	GTC	CTT
GTT			
Asp	Val	Glu	Glu
Gln	Asn	Asn	His
Arg	Ser	Val	Leu
Val			
3290	3299	3308	3317
ATC	CCA	GAA	TGG
GAG	GCA	GAA	GTG
TCA	CAA	GAG	GTT
CGT			
Ile	Pro	Glu	Trp
Glu	Ala	Glu	Val
Ser	Gln	Glu	Val
Arg			
3326	3335	3344	3353
3362			
GTC	TGT	CCA	GGT
CGT	GGC	TAT	ATC
CTT	CGT	GTC	ACA
GCA			
Val	Cys	Pro	Gly
Arg	Gly	Tyr	Ile
Leu	Arg	Val	Thr
Ala			

FIG. 14P

3371	3380	3389	3398	
TAT AAA GAG GGA TAT GGA GAG GGC TGC GTA ACG ATC CAT				
Tyr Lys Glu Gly Tyr Gly Glu Gly Cys Val Thr Ile His				
3407	3416	3425	3434	
GAG ATC GAA GAC AAT ACA GAC GAA CTG AAA TTC AGC AAC				
Glu Ile Glu Asp Asn Thr Asp Glu Leu Lys Phe Ser Asn				
3443	3452	3461	3470	3479
TGT GTA GAA GAG GAA GTA TAT CCA AAC AAC ACA GTA ACG				
Cys Val Glu Glu Glu Val Tyr Pro Asn Asn Thr Val Thr				
3488	3497	3506	3515	
TGT AAT AAT TAT ACT GGG ACT CAA GAA GAA TAT GAG GGT				
Cys Asn Asn Tyr Thr Gly Thr Gln Glu Glu Tyr Glu Gly				
3524	3533	3542	3551	
ACG TAC ACT TCT CGT AAT CAA GGA TAT GAC GAA GCC TAT				
Thr Tyr Thr Ser Arg Asn Gln Gly Tyr Asp Glu Ala Tyr				
3560	3569	3578	3587	3596
GGT AAT AAC CCT TCC GTA CCA GCT GAT TAC GCT TCA GTC				
Gly Asn Asn Pro Ser Val Pro Ala Asp Tyr Ala Ser Val				

FIG. 14Q

3605	3614	3623	3632									
TAT	GAA	GAA	AAA	TCG	TAT	ACA	GAT	GGA	CGA	AGA	GAG	AAT
Tyr	Glu	Glu	Lys	Ser	Tyr	Thr	Asp	Gly	Arg	Arg	Glu	Asn
3641	3650	3659	3668									
CCT	TGT	GAA	TCT	AAC	AGA	GGC	TAT	GGG	GAT	TAC	ACA	CCA
Pro	Cys	Glu	Ser	Asn	Arg	Gly	Tyr	Gly	Asp	Tyr	Thr	Pro
3677	3686	3695	3704	3713								
CTA	CCG	GCT	GGT	TAT	GTA	ACA	AAG	GAT	TTA	GAG	TAC	TTC
Leu	Pro	Ala	Gly	Tyr	Val	Thr	Lys	Asp	Leu	Glu	Tyr	Phe
3722	3731	3740	3749									
CCA	GAG	ACC	GAT	AAG	GTA	TGG	ATT	GAG	ATC	GGA	GAA	ACA
Pro	Glu	Thr	Asp	Lys	Val	Trp	Ile	Glu	Ile	Gly	Glu	Thr
3758	3767	3776	3785									
GAA	GGA	ACA	TTC	ATC	GTG	GAT	AGC	GTG	GAA	TTA	CTC	CTT
Glu	Gly	Thr	Phe	Ile	Val	Asp	Ser	Val	Glu	Leu	Leu	Leu
3794	3803	3813	3823	3833								
ATG	GAG	GAA	TAA	GATACGTTAT	AAAATGTAAC	GTATGCAAAT						
MET	Glu	Glu	.									

FIG. 14R

3843 3853 3863 3873 3883
AAAGAATGAT TACTGACCTA TATTAACAGA TAAATAAGAA AATTTTATA

3893 3903 3913 3923
CGAATAAAAA ACGGACATCA CTCTTAAGAG AATGATGTCC

FIG. 15A

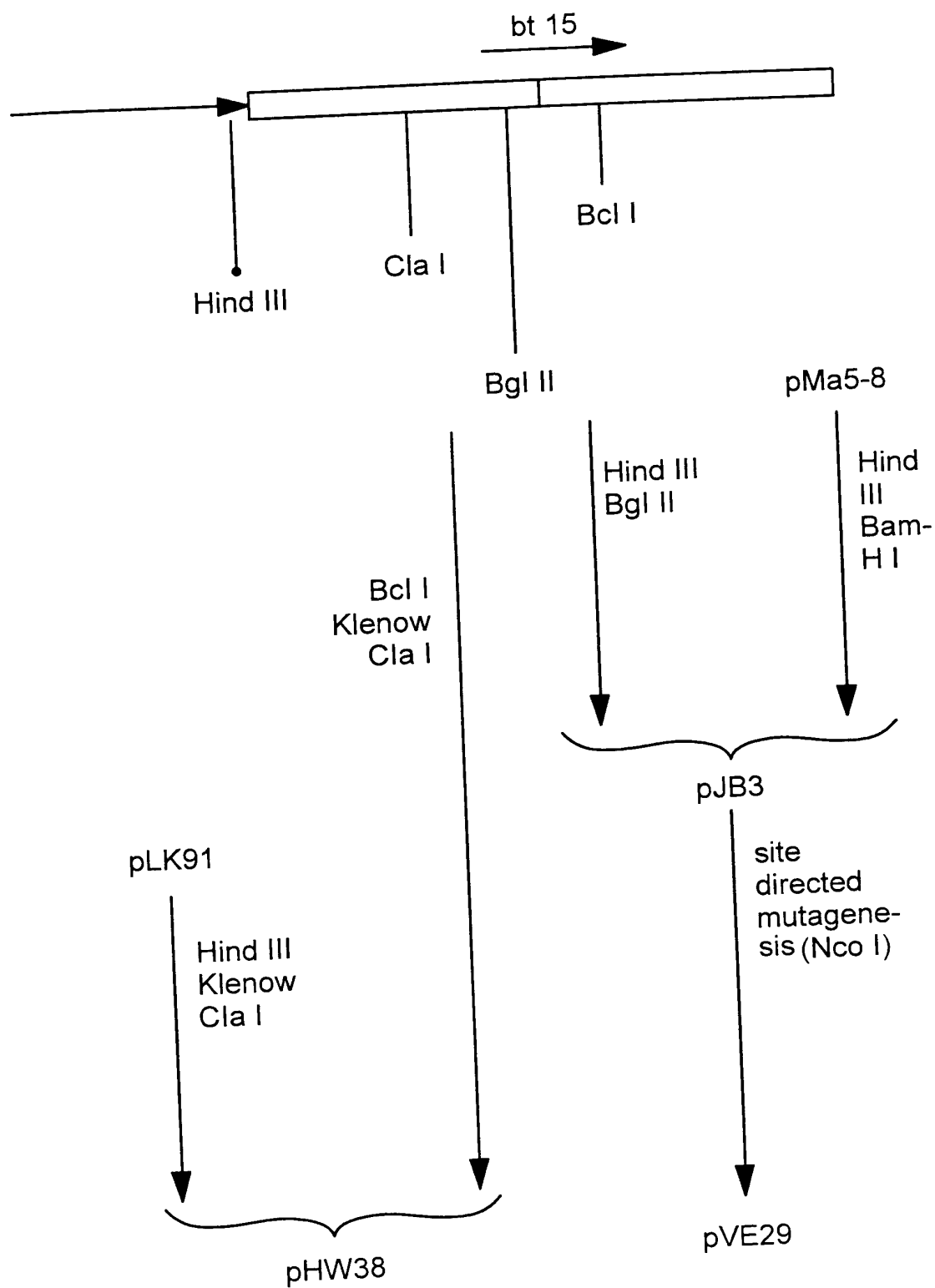


FIG. 15B

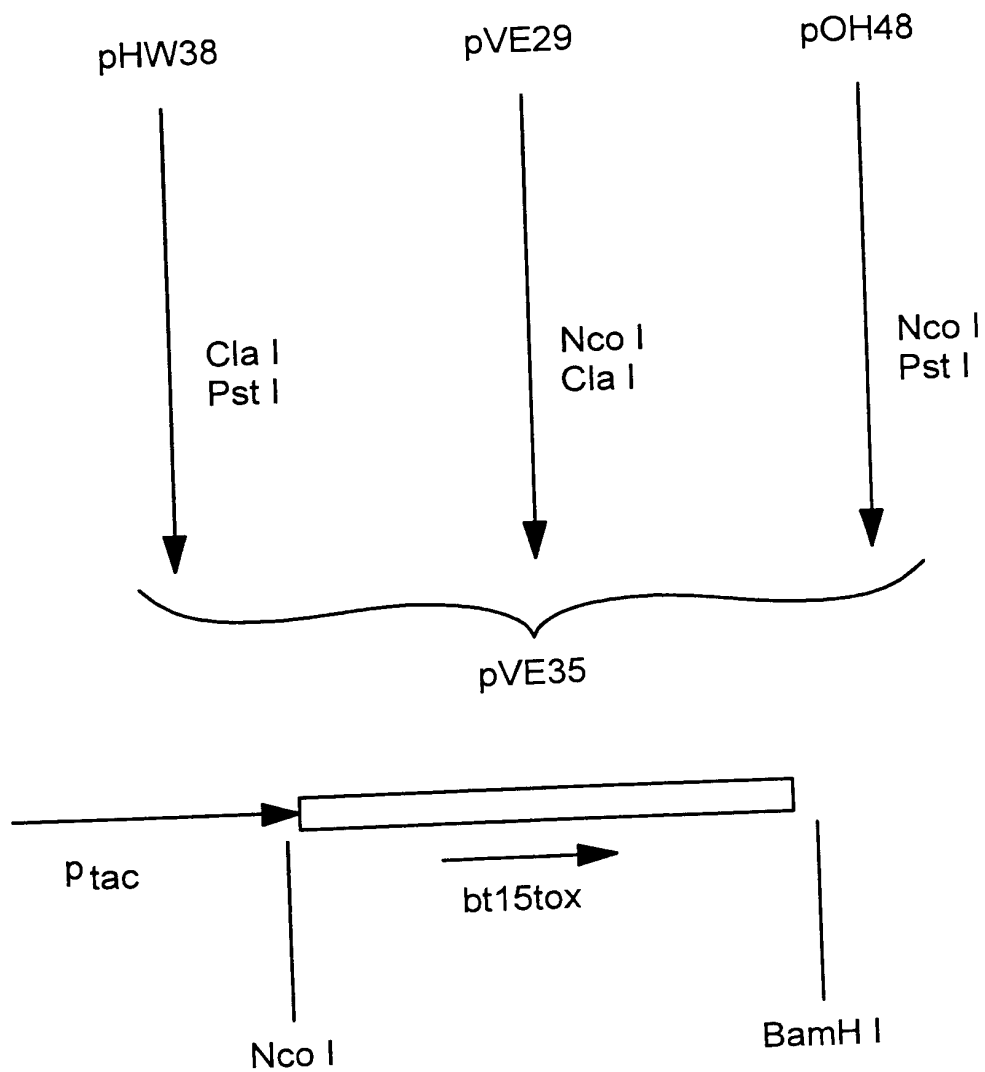


FIG. 15C

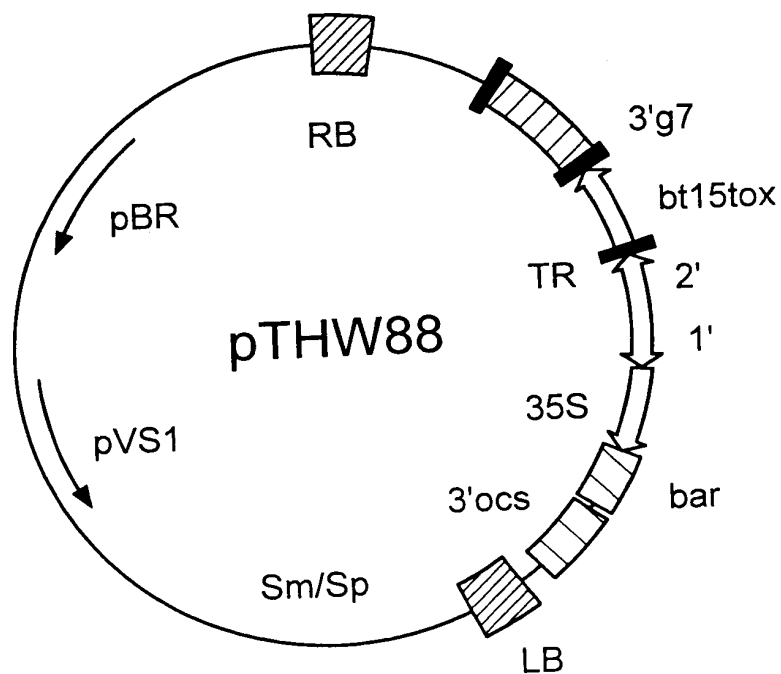
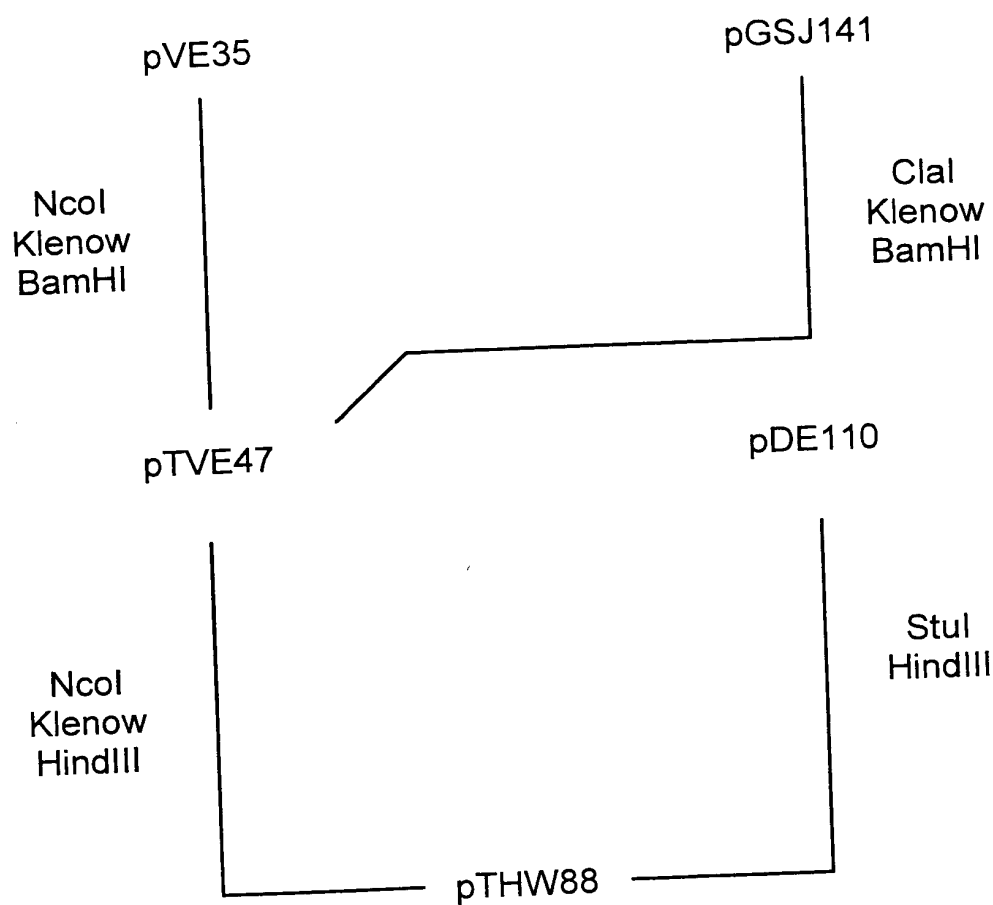


FIG. 16A

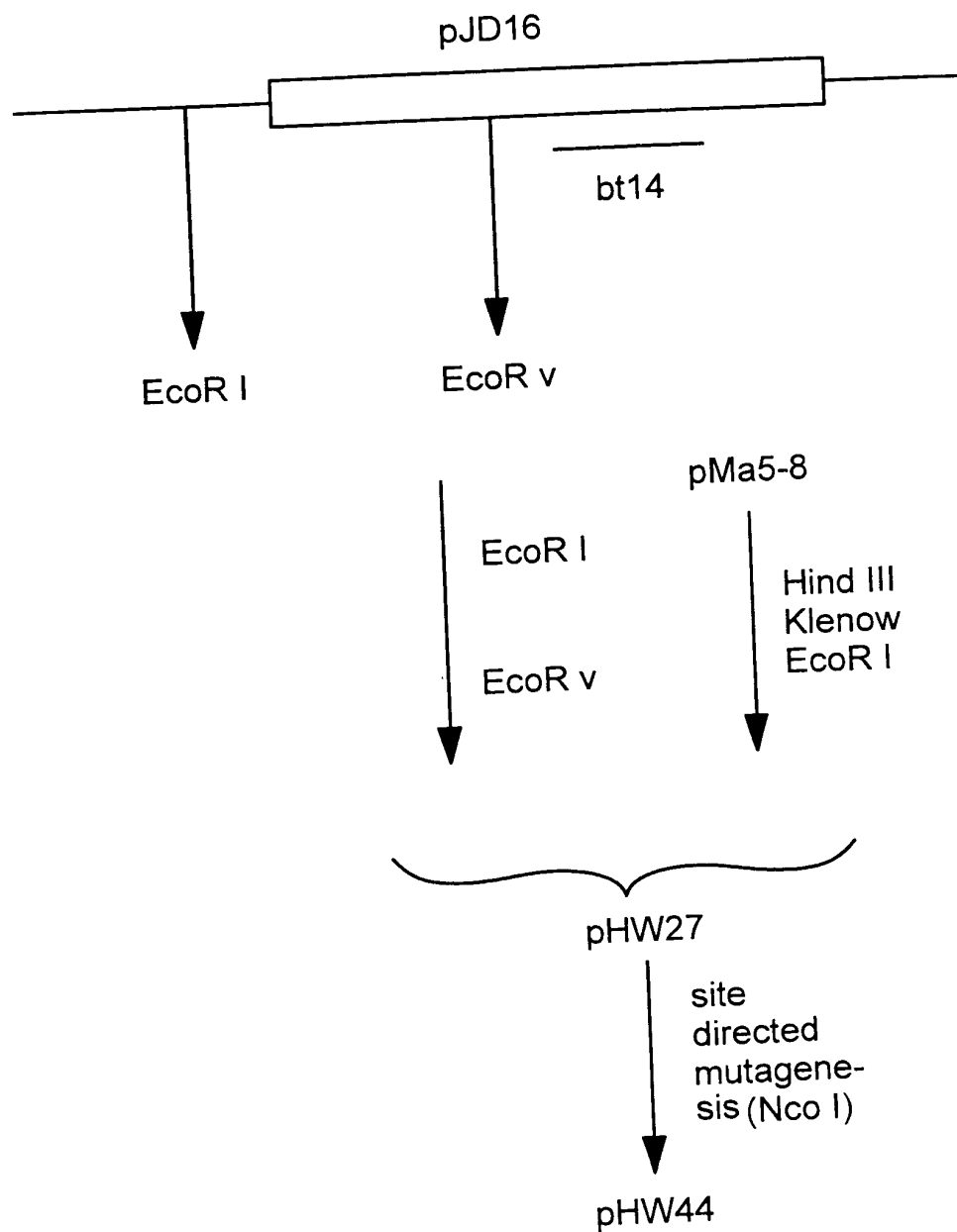


FIG. 16B

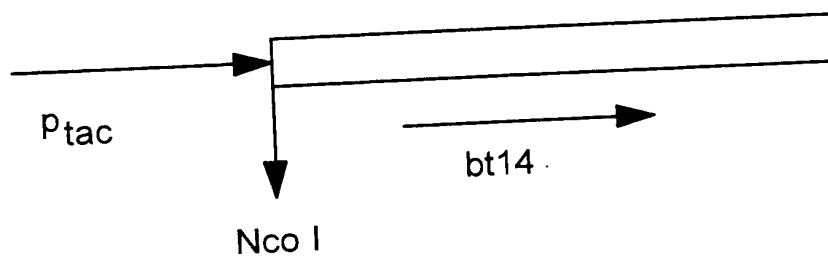
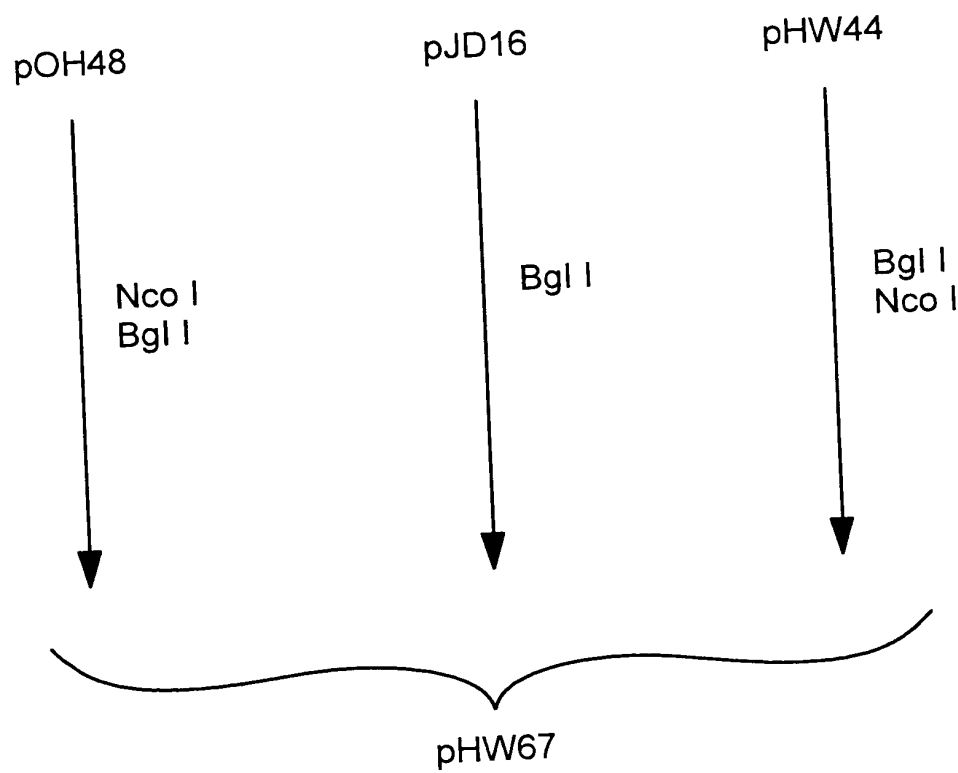


FIG. 16C

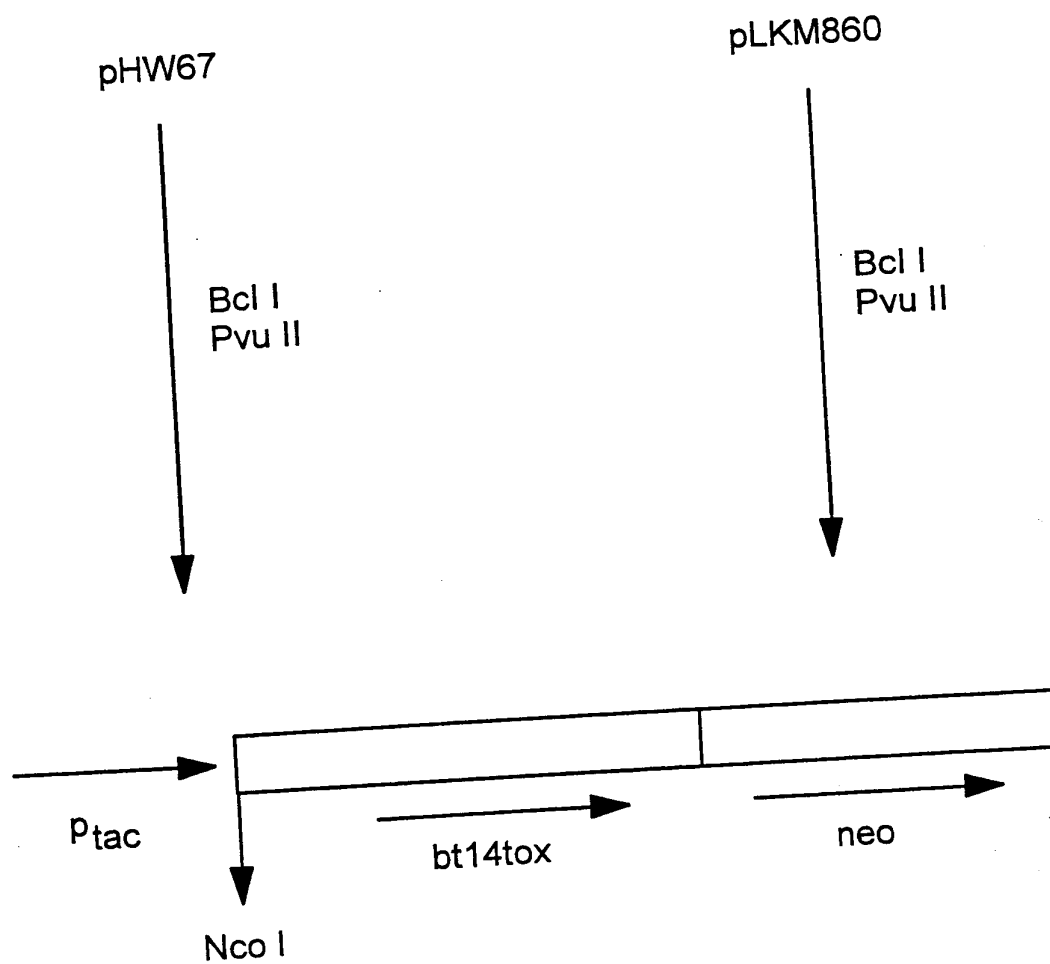


FIG. 16D

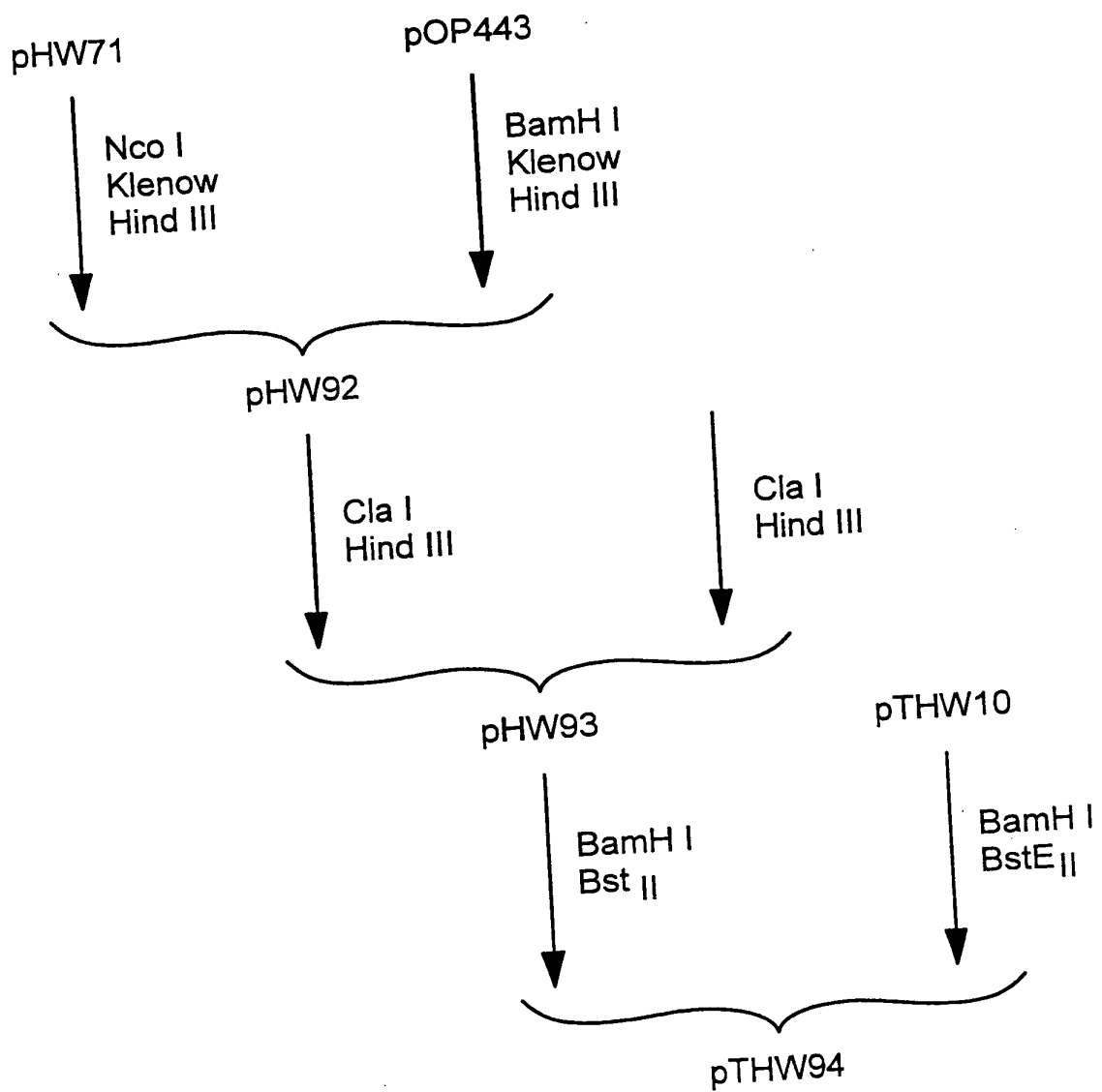
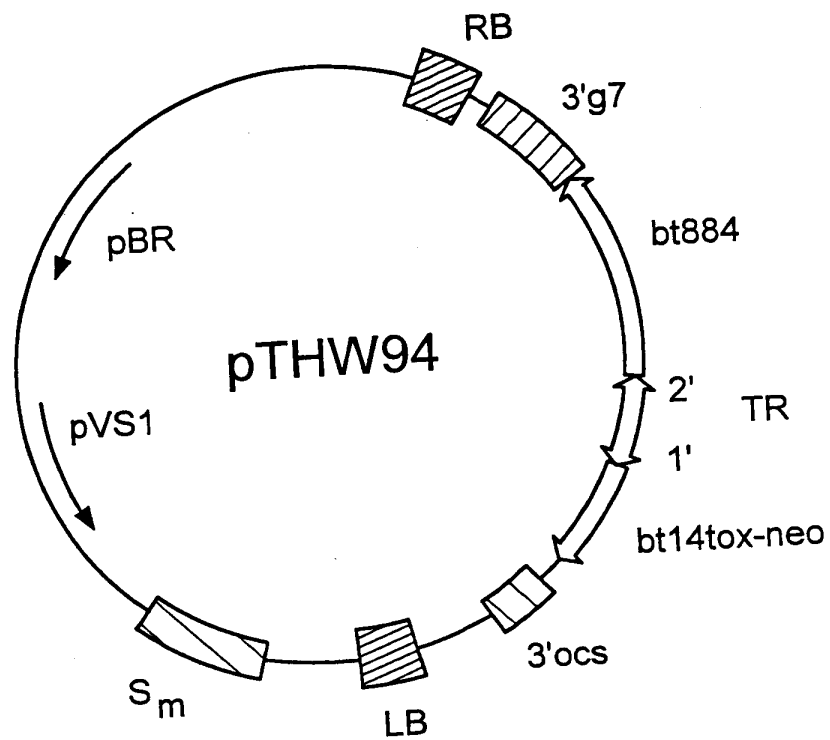


FIG. 16E



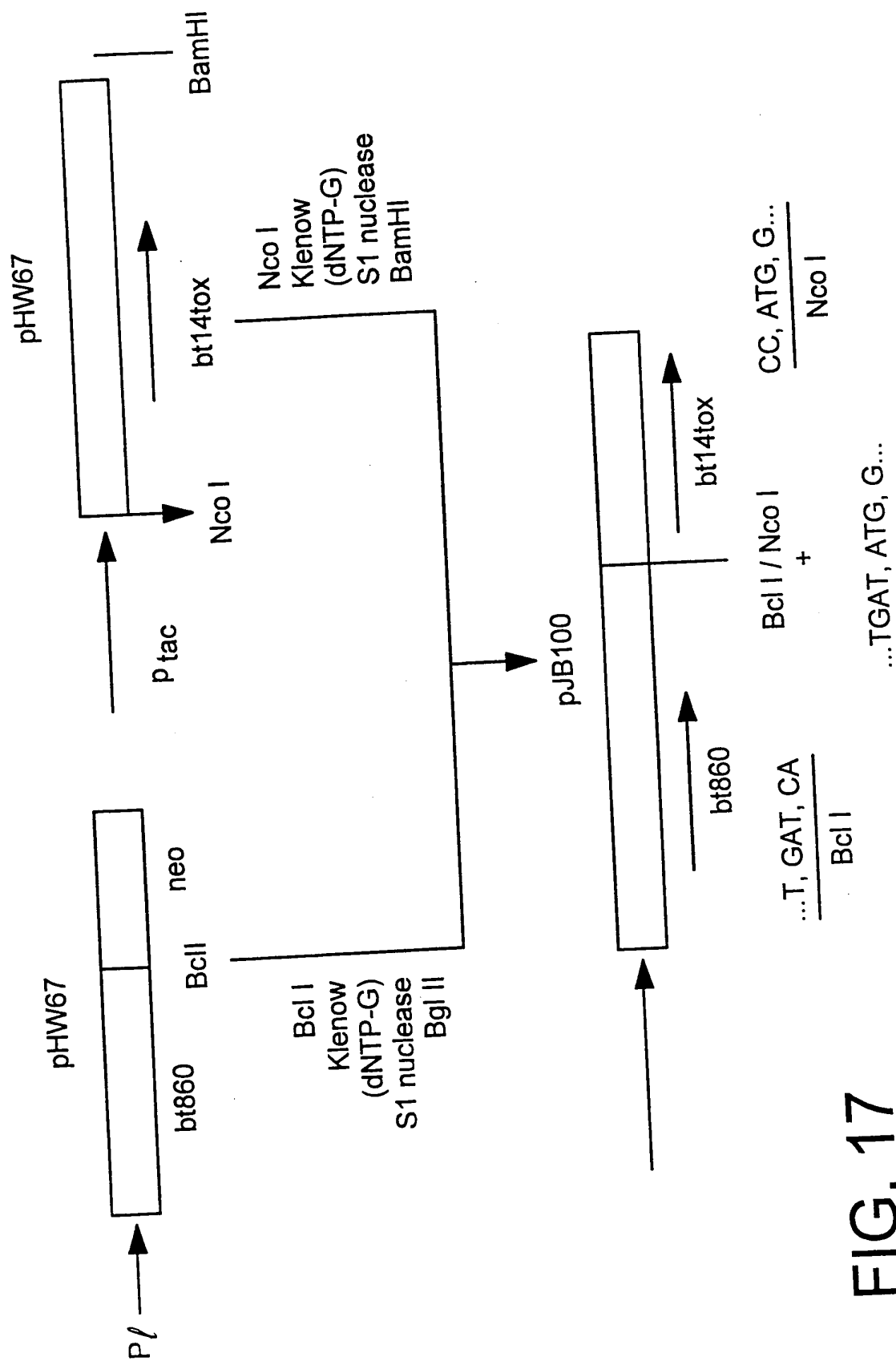


FIG. 17